Environmental Assessment and DRAFT Section 4(f) Evaluation

Big Hole River Bridges - SE of Glen

- BR 9001 (20) - West Bridge
- BR 9029 (9) - East Bridge

Beaverhead & Madison Counties, Montana

Prepared For:
U.S. Department of Transportation
Federal Highway Administration
and the
State of Montana
Department of Transportation

Prepared By:
Robert Peccia & Associates
Helena, MT

(Control Numbers 2282/2283)

ENVIRONMENTAL ASSESSMENT
and
DRAFT *SECTION 4(f)* EVALUATION

BIG HOLE RIVER BRIDGES - SE OF GLEN

BR 9001 (20) - West Bridge; Control No. 2282
BR 9029 (9) - East Bridge; Control No. 2283

Beaverhead and Madison Counties, Montana

This document is prepared in conformance with the *Montana Environmental Policy Act (MEPA)* requirements and contains the information required for an Environmental Assessment under the provisions of ARM 18.2.237(2) and 18.2.239. It is also prepared in conformance with the *National Environmental Policy Act (NEPA)* requirements for an Environmental Assessment under 23 CFR 771.119.

Submitted pursuant to:

42 U.S.C. 4332(2)(c), 49 U.S.C. 303 and

Sections 2-3-104, 75-1-201, M.C.A.

by the

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration

and the

MONTANA DEPARTMENT OF TRANSPORTATION

Submitted by: _____ Date: 6/22/99
MONTANA DEPARTMENT OF TRANSPORTATION
Environmental Services

Reviewed & Approved for
Distribution: _____ Date: 6-23-99
Federal Highway Administration

The following persons may be contacted for additional information concerning this document:

Joel M. Marshik, P.E.,Environmental Services Manager
MONTANA DEPARTMENT OF TRANSPORTATION
2701 Prospect Avenue
P.O. Box 201001
Helena, Montana 59620-1001
(406) 444-7632

Janice W. Brown, Division Administrator
Montana Division Office
Federal Highway Administration
2880 Skyway Drive
Helena, Montana 59602
(406) 449-5302

Table of Contents

Page No.

List of Figures, Photo Plates, and Tables

I. Description of the Proposed Action

I. DESCRIPTION OF THE PROPOSED ACTION

A. Project Area

The project area is located in southwest Montana near Glen, a small community in the northeastern portion of Beaverhead County. Glen is situated about 31 kilometers (km) (19 miles) north of Dillon and about 72 km (45 miles) south of Butte. The project area is located at the northern edge of a broad valley between the East Pioneer Mountains and the Ruby Range drained by the Big Hole and Beaverhead Rivers. The Big Hole River, a nationally renowned fishery, passes through the immediate project area. The MONTANA DEPARTMENT OF FISH, WILDLIFE & PARKS (MDFWP) recognizes the Big Hole River as a "blue ribbon" stream for its resource values and sport fishery potential.

Interstate 15 (I-15) serves as the major travel corridor for vehicle traffic passing through the area. The old highway through the area, now used as a frontage road for I-15, also receives substantial use by local traffic. **FIGURE 1** shows the general location of the project area.

B. Project Location

The MONTANA DEPARTMENT OF TRANSPORTATION (MDT), in cooperation with Beaverhead and Madison Counties, is planning to improve transportation facilities on an "off-system" road by replacing two bridges over the Big Hole River approximately 1.6 km (1 mile) southeast of Glen. The proposed bridge replacements are located on Burma Road in the Southeast ¼ of Section 23 and the Southwest ¼ of Section 24 in Township-4-South, Range-9-West, M.P.M. The road crosses the main channel of the Big Hole River at the west bridge from Beaverhead County onto an island located in Madison County. The road then continues easterly across the island and crosses an overflow channel of the Big Hole at the east bridge.

The locations for these bridge replacement projects are shown below in **FIGURE 2**.

C. Description of the Project

The proposed action would replace the existing bridges with new structures and approaches built for greater safety and adherence to current design standards. The existing west structure is a single-lane Pratt through-truss 39 meters (m) (128 feet) in length with a 4.1 m (13.7 feet) wide deck. The east bridge is a 27 m (90 feet) long, single span Warren through-truss with a 4.7 m (15.3 feet) wide deck. The west bridge was built in 1900 and the east bridge was built in 1910. The majority of the users of the bridges are local ranchers and residents who use the bridges daily. Fisherman and commercial fishing guides use the bridges seasonally for access to the Big Hole River. Photos of the existing bridges are shown in **PLATES 1** and **2**.

The new bridge decks would accommodate a 7.2 m (24 feet) wide roadway and provide for two lanes of traffic. Since recreational floating occurs on this reach of the Big Hole River, the supporting structures for the new bridges would be designed to maintain sufficient clearances between the high water elevation of the river and the bottom of supporting beams (freeboard) to

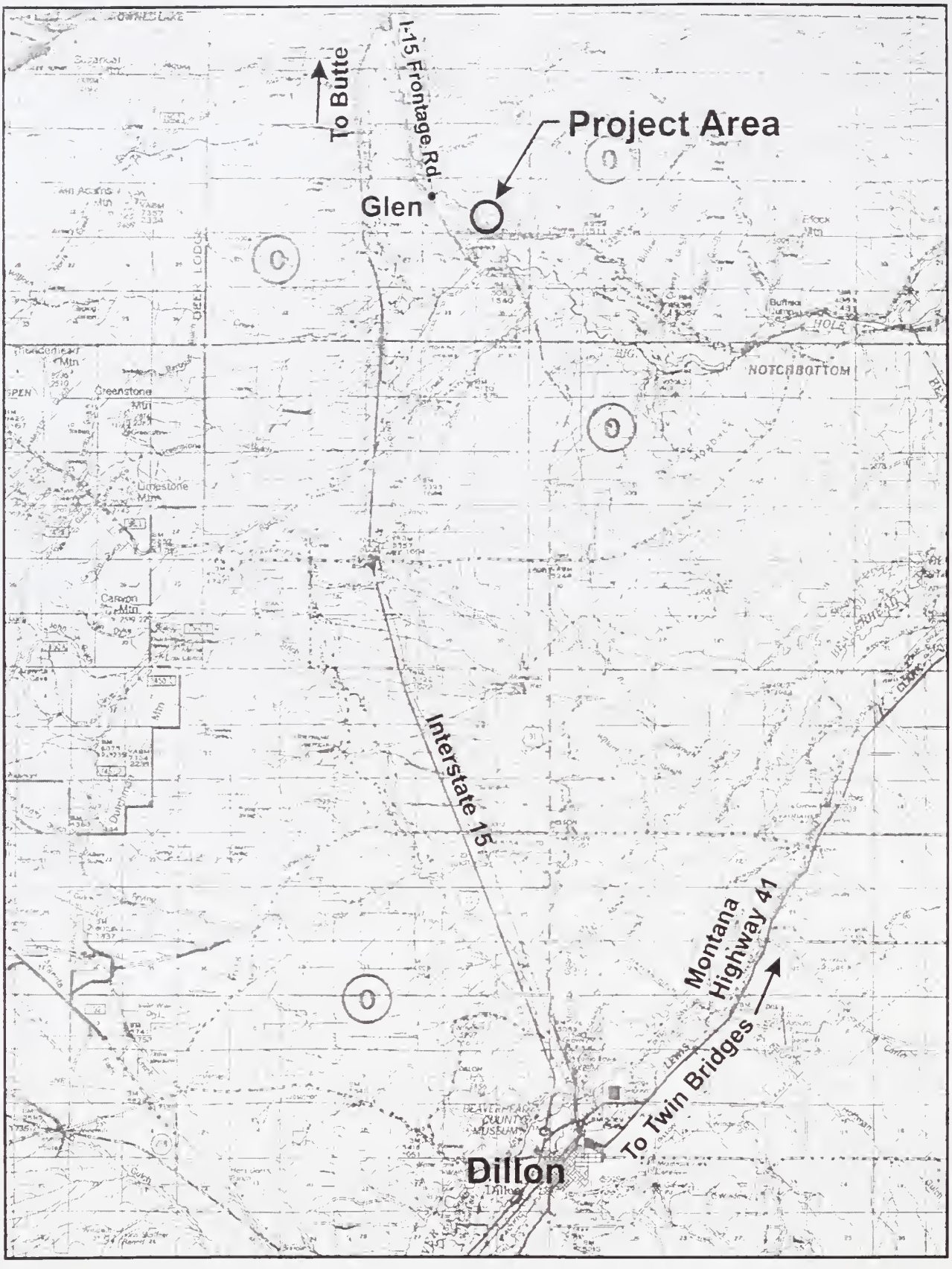
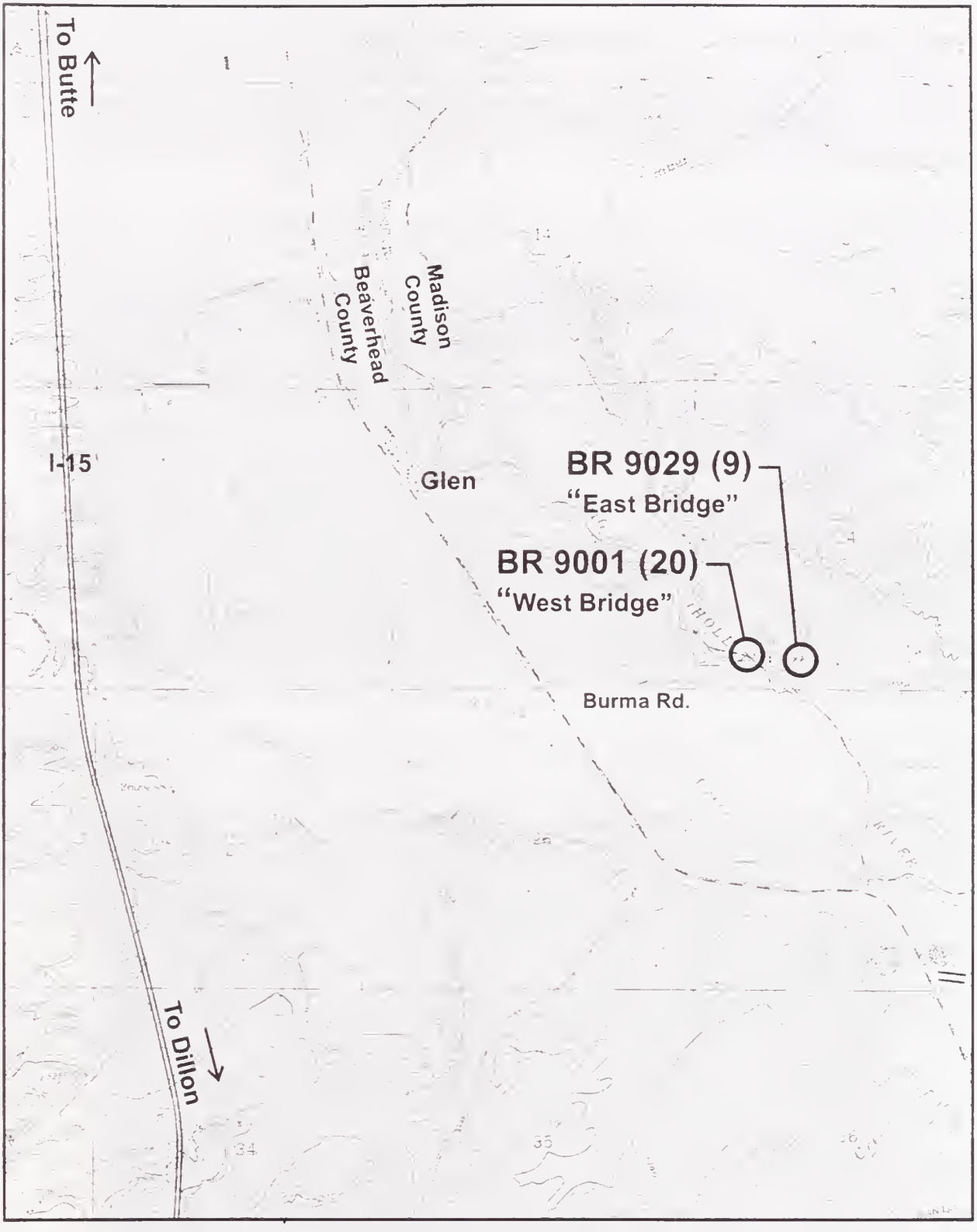


Figure 1:
Project Vicinity Map



Scale: 1" = 1500'

N

Figure 2:
Project Area Topographic Map

ensure that sufficient head room is available for floaters. Although the regional biologist for the MDFWP has indicated that the existing freeboard at the bridges is more than adequate, MDT would give the agency an opportunity to approve the bridge layouts prior to final design. The new bridges and their approaches would be designed to meet MDT's minimum geometric standards for off-system bridges.

The existing approaches to the bridges have gravel surfaces and are typically 7.2 m (24 feet) wide. The proposed action would also construct new approaches to each bridge. The horizontal and vertical alignment of the new approaches would depend upon the selected bridge sites, the elevation of the new bridge deck, and the required transitions to existing roads in the area. The existing structures would be offered to an interested party as required by **23 U.S.C. § 144**, if Beaverhead or Madison Counties are not interested in reusing the trusses. The necessary advertising for the adoption or reuse of the structures would be completed prior to the construction of the projects.

D. Project Funding

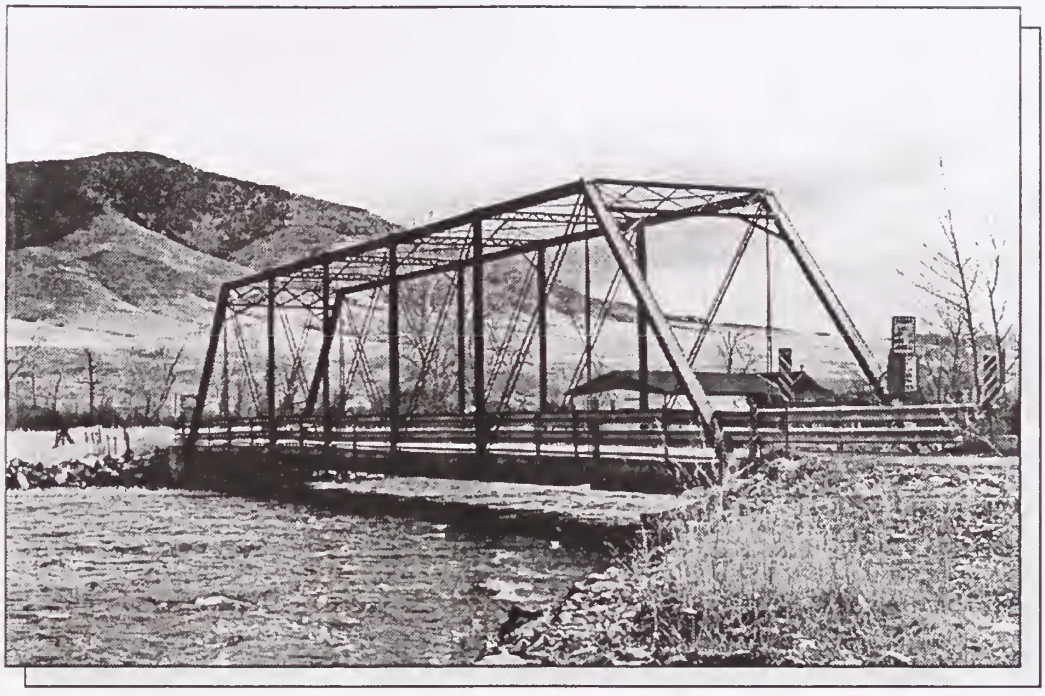
Off-system bridges (bridges not on Interstate, National Highway System, Primary, Secondary, or Urban routes) are owned by the counties in which they are located. MDT inspects off-system bridges as required by the FEDERAL HIGHWAY ADMINISTRATION (FHWA) and occasionally designs and builds some county-owned structures. In this instance, the west bridge is owned by Beaverhead County and the east bridge is owned by Madison County.

The MDT receives limited funding for bridges through the Highway Bridge Replacement and Rehabilitation Program (HBRRP) funded under the Federal Highway Trust Fund. HBRRP program funding is 80% federal with a 20% state match. Thirty-five percent of the funds allocated to the State's HBRRP, are dedicated to off-system bridges. The program allocates funds to Montana's five financial districts based on need. The funds are then distributed to counties on a priority basis. Lists are sent to counties showing which bridges are eligible for off-system funds and priorities for rehabilitation or replacement are assigned by the local government. Counties must nominate off-system bridges to be improved.

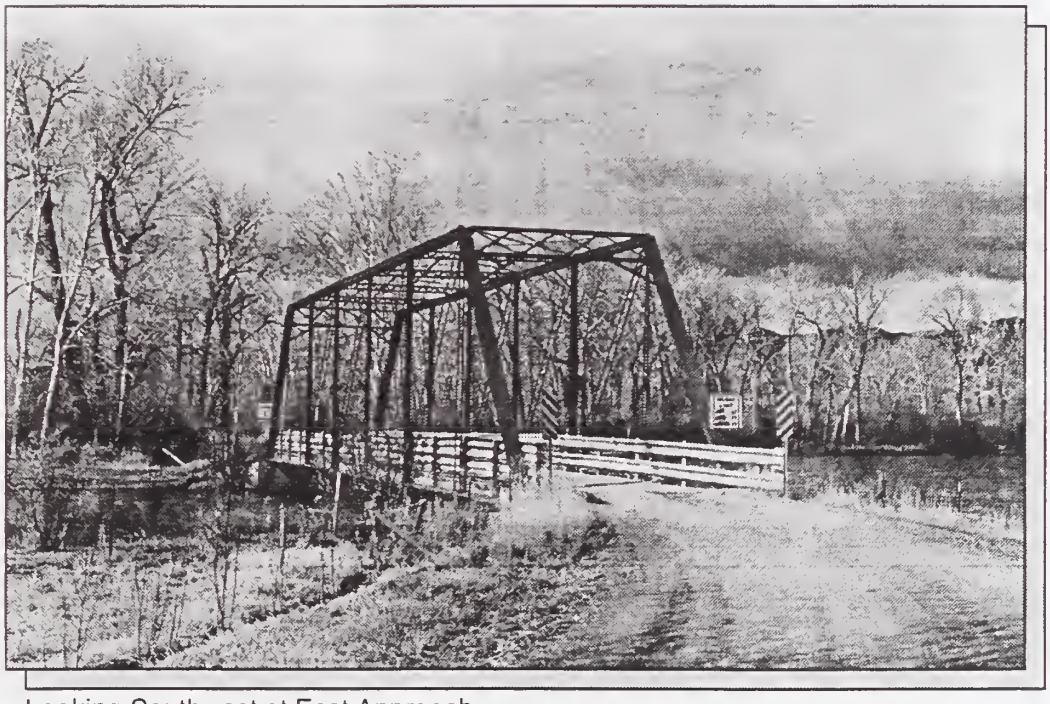
To ensure that the funds for off-system bridges are allocated fairly, MDT employs a system to rate the bridge's ability to meet the transportation needs of the public based on the bridge's structural condition and functional adequacy. The rating system used by MDT to determine the adequacy of bridges is called a *Sufficiency Rating*. New bridges usually have sufficiency ratings higher than 95 on a 100 point scale. Whenever a bridge's Sufficiency Rating falls below 80, it becomes eligible to receive rehabilitation funding if it is functionally obsolete and/or structurally deficient. When a bridge's Sufficiency Rating falls below 50, it can be nominated for replacement. According to recent Structure Inventory and Appraisals done by MDT, the Sufficiency Ratings for the west and east bridges are 23.1 and 18.4, respectively. MDT considers both bridges to be structurally deficient and functionally obsolete. Deficiencies of the existing bridges are discussed further in Part II of this Environmental Assessment.

Beaverhead and Madison Counties have nominated these bridges for replacement rather than rehabilitation.

Plate 1: Photographs of Existing West Bridge



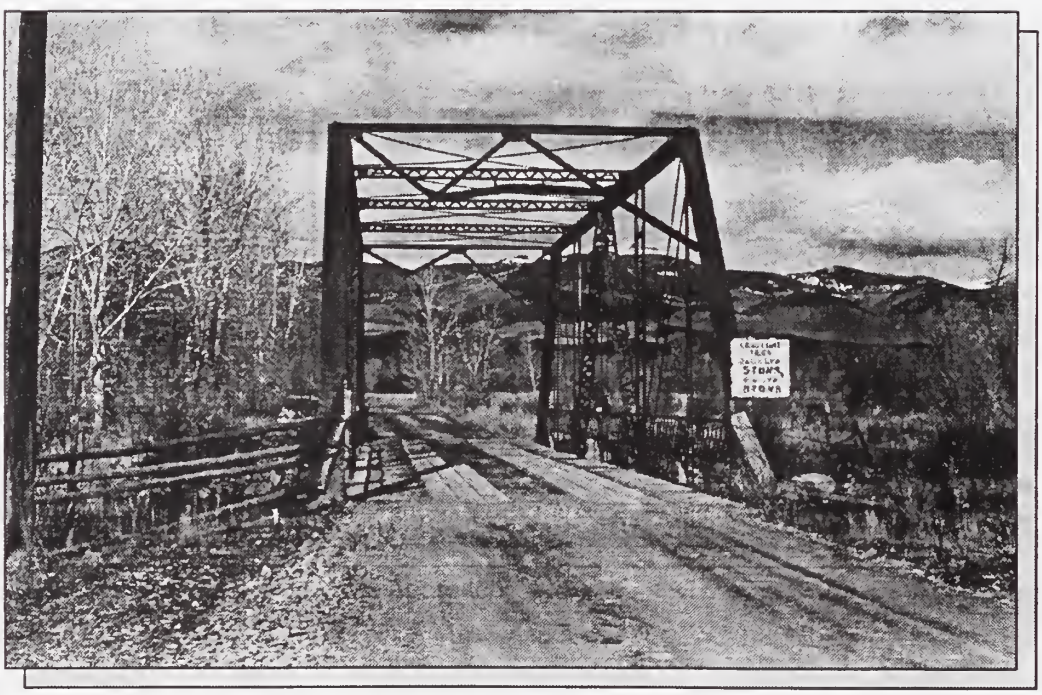
Looking Northeast at West Approach



Looking Southwest at East Approach

Plate 2: Photographs of Existing East Bridge

Looking Southeast from West Approach



Looking Northwest from East Approach

II. Purpose and Need for Action

II. PURPOSE and NEED for ACTION

A. Road and Bridge Use

The Glen to Twin Bridges Road (Burma Road) was originally developed after construction of the two bridges over the Big Hole River near Glen. The route provided a shortcut between the Big Hole and Jefferson River Valleys and was used by local ranchers, freighters, and miners. Burma Road also offered access to the nearby Union Pacific Railroad for ranchers moving their cattle to market.

Currently, Burma Road and the river crossings are used by local traffic including residents of nearby residences and ranches, school buses, farm equipment, and delivery trucks. The route is occasionally used for through travel between Glen and Twin Bridges. The road and bridges are also seasonally used by recreational traffic accessing the Big Hole River from the Glen Fishing Access Site (FAS) located immediately south of the west bridge. The river and FAS are heavily used by guide services and recreational fisherman at certain times of the year. Burma Road provides access to other fishing access sites on the Big Hole River between Glen and Twin Bridges.

MDT estimates that the average daily traffic on this section of Burma Road is about 100 vehicles per day. Notably higher daily traffic volumes are expected to occur when recreational use of the river and the Glen FAS peaks. Design Year (2018) traffic volumes for Burma Road is estimated to be 120 vehicles per day.

B. Current Deficiencies

The Big Hole River bridges near Glen are steel through-truss structures built in 1900 and 1910. Both bridges were found to be **functionally obsolete and structurally deficient** by MDT based on their Sufficiency Ratings. The west and east bridges have sufficiency ratings of 23.1 and 18.4 on a 100 point scale, respectively (see *STRUCTURE INVENTORY AND APPRAISAL* forms dated April, 1995 in APPENDIX C). The Sufficiency Rating is a composite of several ratings of individual bridge items that rate the structural condition and geometry of the bridge. A bridge with a low rating on structural items will be designated as structurally deficient and a bridge with a poor rating for geometry items will be designated as functionally obsolete.

The reasons that the existing bridges are functionally obsolete and structurally deficient are discussed below.

- The west bridge currently has a 6-ton load limit and the east bridge has a 5-ton load limit depending upon the type of truck. These bridges are functionally obsolete because the structures actually warrant 36-ton load limits. Because of the low load rating, any larger-than-normal truck loads cannot safely cross the bridge. This fact inconveniences road users and residents of the area and may in extreme cases (like the need for fire protection) put lives and property at risk.

Overhead structural members on the west bridge and east bridges limit vertical clearances to 4.5 m (14.8 feet) and 3.3 m (10.8 feet), respectively.

Oversize and overweight vehicles must use alternate routes to the north or south of Glen to travel around the restricted crossings on Burma Road. These alternate routes add at least 37 km (23 miles) to the travel distance between Glen and Twin Bridges.

❖ The existing structures do not meet MDT minimum standards for roadway width and serve just one lane of traffic. The existing west bridge is only 4.2 m (13.7 feet) wide and the east bridge is only 4.7 m (15.3 feet) wide. The standard minimum width for a two-lane bridge is 7.2 m (24 feet) which is sufficient to provide two 3.6 m-wide (12-foot-wide) travel lanes on the bridge deck.

❖ MDT's most recent inspection of the west structure noted the following deficiencies:

- the wooden bridge deck timbers are cracked, split, and badly worn;
- bearing devices are badly rusted and covered with debris, the truss is badly rusted and scaled or has bent members, and some bracing for the truss is missing;
- the concrete abutments have cracked and spalled exposing aggregate and reinforcing steel, particularly at the water line;
- concrete substructure caps are cracked and spalled; and
- end fills at the structure are sloughing.

In addition, MDT's inspection noted that minor drift is present around the bridge abutments and riprap is badly needed around the west end abutment of the west structure. Minor drift refers to minor amounts of floating debris (like branches or ice) that may accumulate in the vicinity of the abutments for the existing bridges. Photographs included with the inventory and appraisal forms in APPENDIX C document deficient conditions at the west bridge.

❖ With the exception of missing braces on the truss, MDT's most recent inspection report for the east structure noted many of the same deficiencies listed for the west bridge.

❖ The existing horizontal alignment and vegetation on the approaches to the west structure limits driver sight distance. This condition could cause vehicle conflicts if westbound and eastbound traffic try to simultaneously use the one-lane bridge.

For these reasons, Beaverhead County and Madison County have nominated the bridges for replacement rather than rehabilitation.

C. Traffic Safety and Efficiency

MDT's accident analysis shows there were no investigated accidents on or near the existing bridges from January 1, 1987 through December 31, 1996. However, inspections show evidence of physical damage to the structures caused by vehicle collisions. Even though the accident history at the crossings is not significant, the sight distance limitations on the immediate

approaches to the west bridge and the potential for vehicle conflicts on both narrow bridges are conditions that could contribute to accidents at this location.

Building new bridges will provide a safer and more efficient facility for road users. The new structures with wider driving surfaces on the bridge deck and approaches will provide better access for residents, road users, and recreationists traveling in and out of the area. The two-lane road associated with the proposed bridge replacements will improve safety for motorists, pedestrians, and bicyclists by widening the road's surface and providing better driver sight distances.

Upgraded or new bridges also provide for a substantial improvement in overall public safety. The load restrictions imposed on the current bridges may cause large emergency vehicles to use alternate routes and may increase emergency response times. Providing new bridges will help reduce emergency response times and decrease the risk to life and/or property.

Another result of the proposed bridge replacements will be a more efficient facility for road users. The new bridges will have load ratings of 36 tons. The restricted load capacities of the present structures or the potential closure of the bridges due to a structural failure, could lengthen travel times and distances if alternate routes must be used by motorists driving between Glen and Twin Bridges.

Driving between Glen and Twin Bridges via Burma Road and Montana Highway 41 requires about 30 minutes to traverse the 32 km (20 miles) of the route. The nearest alternate routes for through traffic between Glen and Twin Bridges include: traveling north from Glen on the I-15 frontage road for about 14 km (9 miles) then following Melrose Bench Road east to Twin Bridges; and traveling south on the I-15 frontage road from Glen for some 13 km (8 miles) then heading east on county roads to Montana Highway 41. Use of these alternate routes requires motorists to travel 10 to 15 km (6 to 9 miles) further and adds between 6 and 12 minutes to the total travel time between Glen and Twin Bridges. Use of these alternate routes would cause minor increases in vehicle fuel consumption, vehicle wear, and vehicle emissions.

D. Summary of Purpose and Need

The primary purposes and needs and other benefits of the proposed projects are to:

- Replace two deteriorating bridges with a new structures built to meet current design standards for off-system bridges. The existing bridges were built about ninety years ago and their condition has deteriorated to such an extent that MDT has found the bridges to be both functionally obsolete and structurally deficient.

- Eliminate the 5-ton and 6-ton load limitations and overhead clearance restrictions that currently limit use of the structures by oversize and overweight vehicles. The new bridges would have no overhead clearance restrictions and would be designed with load ratings of 36 tons.

- Increase the widths of the bridge decks and their approaches to meet MDT's design

standards for off-system bridges and roadway width. The existing bridges are only 4.2 m (13.7 feet) and 4.7 m (15.3) wide and accommodate only one travel lane. MDT's standards require a minimum width of 7.2 m (24 feet) for the bridge decks and the approaches. This width would be sufficient to accommodate two travel lanes.

- Improve the overall traffic safety at the river crossings by modifying the roadway alignment, eliminating load restrictions, and providing a wider surface on the road and bridge decks. The new bridges will help reduce emergency response times and decrease the risk to life and/or property since the existing bridges cannot be safely traversed by oversize vehicles commonly used by emergency services providers.

III. Alternatives Considered

III. ALTERNATIVES CONSIDERED

A. Introduction

Montana highway and bridge projects are designed to meet or exceed recommended minimum geometric standards. These geometric standards are based on policies and design guidelines established by MDT and the AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO). Since MDT is acting on behalf of, and in the best interest of Beaverhead and Madison Counties, this project will be developed to conform with MDT's "Bridge Design Standards"and current AASHTO Standard Specifications. The design of the approaches to the structures is based on standards outlined in MDT's "Road Design Manual." Considering the many notable deficiencies of the existing bridges. substantial upgrading is required to meet these standards.

Alternatives for the proposed actions are identified and examined in this Part. The text below discusses the range of alternatives initially considered, identifies a Preferred Alternative, and discloses why one alternative is preferred to the others considered for these bridge replacements.

B. Alternatives Considered

Alternatives initially considered for the proposed actions are identified in this section of the Environmental Assessment. These alternatives generally include the No Build Alternative, closing the bridges, rehabilitating the existing bridges, and four build alternatives that would replace the existing structures with new bridges. Each alternative addresses identified safety or operational problems with the existing crossings to various degrees. These alternatives are described below:

1. The No Build Alternative

The No Build alternative (also known as the "do nothing" or "no action" alternative) involves no work to improve or correct deficiencies that exist at the Big Hole River bridges southeast of Glen. This alternative would not change the existing bridges or their approaches; however, the roadway and structures would receive the minor actions needed to maintain the existing facilities for continued public use.

Except for the costs associated with continued maintenance of the existing bridges, this alternative has no direct costs and no new impacts would occur on the surrounding environment. There would be no impacts on adjacent residential or agricultural land uses or change in access due to the acquisition of new right-of-way and realignment of Burma Road. There would be no loss of habitat for wildlife adjacent to the Big Hole River and no changes to the visual appearance of the project area.

2. Close the Existing Bridges

This alternative involves the closure of the existing bridges and assumes no actions would be

undertaken to maintain or improve the structures. Since the structures would not be available for use, the public could no longer travel between Glen and Twin Bridges on Burma Road. The Glen Fishing Access site would continue to be accessible from the west. Like the No Build alternative, this alternative has no direct costs to either Beaverhead or Madison Counties. The alternative does not involve construction and would not cause new impacts on the adjacent lands or the Big Hole River.

3. Rehabilitate the Existing Bridges

Rehabilitation of the existing bridges consists of salvaging usable parts from the existing structures and installing new members and pieces where needed. The original structures would likely be left standing in place while undergoing repairs. Rehabilitating old bridges, particularly historic bridges, is a fairly common practice since old bridges often serve as symbols of the past and as important landmarks in the local community.

The environmental impacts of rehabilitating the east and west bridges would be less than those associated with building new structures since this alternative retains the existing length, alignment, and structural system of the main spans of each bridge. Rehabilitation of the existing structures would not require any substantial changes to the approaches for each bridge. Structural renovations would increase the load rating of the bridges and the appearance and character of the old bridges would be maintained. Maintaining the appearance of the east bridge is an important consideration since the structure is eligible for listing in the NATIONAL REGISTER OF HISTORIC PLACES (NRHP).

4. Build Alternatives

Four build alternatives were considered for this proposed action which involve providing new bridges at various locations within the project area. These alternatives ranged from building new bridges near the sites of the existing crossings to providing a single new bridge at a downstream location. For convenient reference, the build alternatives were identified as follows:

Alternative A-1	Build New Bridges Near the Existing Crossings
Alternative A-2	Build West Bridge Near Present Crossing and East Bridge Upstream
Alternative B	Build One Bridge 300 m (about 1,000 feet) Downstream and Retain East Bridge
Alternative C	Build One Bridge 500 m (about 1,640 feet) Downstream and Retain East Bridge

FIGURE 3 shows the build alternatives in relation to the existing road and bridges.

All build alternatives would provide new bridges which would accommodate a 7.2 m (24 feet) wide roadway and provide for two-way traffic. The new bridges would typically have service

Figure 3:
Build Alternatives Considered

lives of between 75 and 100 years and require little maintenance. All of the build alternatives would include new bridges capable of safely carrying 36-ton loads. Approach construction on Burma Road associated with the build alternatives would provide a new road 7.2 m wide (24 feet) with a gravel surface. A more complete description of the build alternatives is presented below.

It should be noted that the lengths of required road work referenced in the following discussion are approximate and were estimated for use in evaluating alternatives. Exact lengths required for bridges and their approaches are not available because detailed hydraulics recommendations and preliminary designs establishing new horizontal and vertical alignments were not completed for all alternatives.

a) Alternative "A-1"- Build New Bridges Near Existing Crossings

This alternative would provide new bridges near the existing structures and require slight realignments to the existing approaches for the crossings. A new bridge would be built just downstream from the existing west structure and a new bridge would be constructed on the upstream side of the east structure. To assure the stability of the new bridge and road and improve hydraulic conditions, bank stabilization measures would be constructed along the south bank upstream from the west crossing. Alternative A-1 assumes two structures totaling 103 m (337 feet) in length are necessary and road work for the approaches would total about 664 m (2,178 feet). The existing road and bridges would remain in service as a detour during the construction of the new bridges and their approaches. Following construction, both existing structures would be removed and areas of the old road would be reclaimed.

Horizontal alignment shifts at the west crossing would provide flatter approach curves and improve driver sight distances. The proposed alignment of this alternative would use substantial portions of the existing alignment east and west of the bridges helping to reduce earthwork and construction costs. Alternative A-1 would likely require the acquisition of a residence and the relocation of its full-time residents from a property on the island between main and overflow channels of the Big Hole River.

The construction of bank stabilization measures upstream from the west bridge would be needed to redirect and improve the flow at the west crossing and improve hydraulic conditions which presently contribute to scour along the river's northwest bank. The use of the existing bridges during construction will allow for continued through traffic on the route and should not cause major inconveniences to local residents.

b) Alternative "A-2" - Build West Bridge Near Present Crossing and East Bridge Upstream

This alternative would construct a new bridge over the main channel of the Big Hole River immediately upstream and parallel to the existing west bridge and a new structure over the overflow channel about 50 m (165 feet) upstream of the existing east crossing. Like Alternative A-1, bank stabilization measures would be necessary along the south bank near the west bridge. Alternative A-2 assumes two structures totaling 100 meters (329 feet) in length are necessary and

road work for the approaches would total about 1,117 m (3,675 feet). Both existing structures would ultimately be removed and areas of the old roadway would be reclaimed.

Alternative A-2 minimizes the amount of new road construction required on the east side of the overflow channel. This alternative would not relocate any residents. Traffic on Burma Road can be maintained during construction of new bridge. The existing road and bridges would be used as a detour during the construction of the new bridges and their approaches.

c) Alternative "B" - Build One Bridge 300 m (about 1,000 feet) Downstream and Retain East Bridge

This alternative includes the realignment of the existing roadway and the construction of a single 65 m (214 feet) long bridge at a site about 300 m (about 1,000 feet) downstream from the existing west bridge. The new bridge would be required to span the entire river channel at this location. The existing west bridge would be removed and the east bridge would remain in place to allow for local access to the island between the main and overflow channels of the river. No work on the east bridge would be done under Alternative B.

This alternative may also require the construction of bank stabilization measures upstream of the new crossing. Approximately 1,170 m (3,835 feet) of road work would be completed with this alternative. The existing road and bridges would remain in service as a detour during the construction of the new bridges and their approaches. The existing east bridge would be left in place to serve local residents.

Since this alternative would construct only one new crossing over the Big Hole River overflow channel, the resulting impacts to the riparian zone and stream habitats would be less than those associated with building two different structures. This alternative would also be less costly to build than Alternatives A-1 or A-2 since only one new bridge would be required. Cost savings could be realized since the required bridge would be at least 35 m (115 feet) shorter than the combined length of the bridges required for Alternatives A-1 and A-2.

d) Alternative "C"- Build One Bridge 500 m (about 1,650 feet) Downstream and Retain East Bridge

This alternative involves building a single 68 m (224 feet) long structure downstream (southeast) from the existing west bridge and constructing about 1,080 m (3,540 feet) of new road and bridge approaches. The new bridge would be located 500 m (about 1,650 feet) downstream from the existing west bridge over the main channel of the Big Hole River. This alternative would construct more than 775 m (2,540 feet) of road on the west approach to the new crossing and about 305 m (1,000 feet) of new road on the east approach.

The existing west bridge would ultimately be removed but the existing east bridge and portions of the old road would remain in place to provide access for local residents of the island in the river. As with Alternative B, no work on the east bridge would be done under this alternative. Abandoned areas of the old road would be reclaimed.

Like Alternative B, cost savings could be realized by building only one bridge. The combined length of bridges required for Alternatives A-1 and A-2 exceeds that of this single bridge alternative by more than 30 m (98 feet). The need for bank stabilization measures would be eliminated by locating the crossing at a site where the channel is stable and has favorable flow characteristics. Alternative C also avoids impacts on the Glen FAS. Local and through traffic movements would not be disrupted during construction.

C. Cost Estimates for Build Alternatives

Preliminary alignments of each build alternative considered were prepared and used as a basis for estimating the cost of each proposal. These preliminary alignments, along with assumptions about the design and construction of the new bridge(s) and related facilities, were used to estimate the construction costs of each build alternative presented below in **TABLE 1**.

TABLE 1: Estimated Construction Costs for "Build" Alternatives Big Hole River Bridges - SE of Glen; BR 9001(20)/BR 9029 (9)

Cost Item	Alternative A-1 See Note (1)	Alternative A-2 See Note (2)	Alternative B See Note (3)	Alternative C See Note (4)
Bridge Work	$651,000	$452,000	$411,000	$430,000
Road Work	$150,000	$250,000	$263,000	$243,000
Bank Stabilization Measures	$100,000	$100,000	$100,000	$0
Remove Old Bridge(s)	$30,000	$30,000	$16,000	$16,000
SUBTOTAL	$931,000	$832,000	$790,000	$689,000
3% Inflation for 1 year	$27,900	$21,100	$23,700	$20,700
SUBTOTAL	$958,900	$853,100	$813,700	$709,700
10% Engineering & 15% Contingencies	$239,700	$213,300	$203,400	$177,500
TOTAL COST	**$1,198,600**	**$1,066,400**	**$1,017,100**	**$887,200**

NOTES:

(1) Alternative A-1 assumes two structures totaling 103 m (337 feet) in length are necessary and road work for the approaches would total about 664 m (2,178 feet).

(2) Alternative A-2 assumes two structures totaling 100 meters (329 feet) in length are necessary and road work for the approaches would total about 1117 m (3,675 feet).

(3) This alternative assumes one structure about 65 m (214 feet) long would be needed and that road work would be done on 1,170 m (3,835 feet) of Burma Road.

(4) Alternative C assumes one structure about 68 m (224 feet) long would be needed and that road work would be done on 1,080 m (3,540 feet) of Burma Road.

The costs presented in **TABLE 1** do not include the costs of acquiring right-of-way because detailed preliminary designs were not completed for each alternative. However, it should be noted that Alternative A-1 would have additional costs associated with a residential relocation and Alternatives A-1 and B would require new right-of-way through the Glen FAS.

D. Alternatives Eliminated from Consideration

The alternatives identified in this section were considered but not advanced for this proposed action. The reasons that the alternatives were eliminated from consideration are also clearly identified. The primary factors used to determine if an alternative should no longer be considered for this proposed action were:

- Does the alternative meet the purpose and need specified in Part II of the Environmental Assessment? and
- Does the alternative result in adverse environmental impacts like relocations of residents, loss of wetlands or important farmland, or adverse effects on cultural or recreational resources?

1. No Build Alternative

The No Build was eliminated from consideration because it does not meet the purpose and need for this proposed project. This alternative would not improve the existing bridges which have been determined functionally obsolete and structurally deficient. The No Build alternative would not address the traveling public's needs for improved traffic safety or satisfy MDT's current geometric design standards for horizontal and vertical alignment and bridge width at the Big Hole River crossings.

2. Close the Existing Bridges

The alternative of closing the bridges to traffic was dropped from consideration because it does not meet the specified purposes and needs for the proposed bridge replacements. Such closures would eliminate through traffic on Burma Road. The nomination of these bridges for replacement suggests that closing the bridges and consequently eliminating through traffic on Burma Road is unacceptable to both Beaverhead and Madison Counties. Closure of the bridges would be inconsistent with the intentions of Beaverhead and Madison Counties to maintain traffic on Burma Road.

Local residents, the traveling public, and users of the fishing access sites along this reach of the Big Hole River would be unduly inconvenienced by this alternative. Closure of the bridges would eliminate access to residents of the island between the Big Hole River and its overflow channel. Motorists wishing to travel between Glen and Twin Bridges would be required to travel substantially farther if Burma Road was no longer open to through traffic. The closure of Burma Road could also adversely impact the public's use of the Big Hole River since long detours would be required to access sections of river to the east and west of the existing crossings.

Therefore, the bridges must be replaced to ensure traffic can be maintained on Burma Road and that the facility can be used by the kinds of vehicles that would normally use this rural route over the foreseeable future.

3. Rehabilitate the Existing Bridges

Rehabilitating the existing structures was eliminated from further consideration because the rehabilitated structures would not meet AASHTO's recommendations and/or MDT geometric design standards for design speed and road width. Neither bridge could be sufficiently upgraded to provide for two driving lanes. Poor driver sight distance on the approaches to the west bridge would not be corrected. Following rehabilitation, the majority of both bridges would still be more than 90 years old, and structural considerations (like pin connections and pier foundations) would need to be investigated. At best, the service lives of the bridges would be extended by 20 to 25 years. Salvage of the bridges would be unlikely after that time.

Both Beaverhead County and Madison County have nominated these bridges for replacement rather than rehabilitation. Rehabilitating the structures would not be consistent with the intentions of these local governments.

4. Alternative A-1

Alternative A-1 was eliminated from consideration due to its potential right-of-way impacts, its adverse effects on facilities and lands within the Glen FAS, and its cost. The proposed alignment of Alternative A-1 would require the acquisition of a residence and the relocation of full-time residents from a property on the island between main and overflow channels of the Big Hole River. The proposed alignment of the alternative would also pass directly through the western portion of the FAS where a boat ramp exists. The proposed alignment of this alternative would also disturb an Indian burial site located within the FAS property. As **TABLE 1** shows, the estimated construction cost of this alternative was the highest of the build alternatives considered for this proposed action.

5. Alternative B

This alternative was dropped from consideration because the construction of new roadway associated with this alternative would affect lands in the Glen FAS and would encroach on existing farmlands to the south of the FAS. Preliminary investigations also suggest that the broad river channel may be laterally unstable in the vicinity of the crossing for this proposed alternative. Preliminary investigations have shown that new road and bridge construction associated with this alternative may impact an estimated 1 to 2 hectares (ha) (2 to 5 acres) of wetlands.

Unless the maintenance responsibility or ownership is assumed by local residents, this alternative would also require that either Beaverhead County or Madison County continue maintaining one of the existing bridges. Load restrictions would remain in effect for the bridge left in service.

6. Alternative C

Alternative C was eliminated from further consideration due to the large amounts of new right-of-way that would be required, its extensive amount of approach road construction, and the potential for creating adverse environmental impacts. The new alignment would pass through

adjacent agricultural lands and may affect existing irrigation systems and the usefulness of such lands. This alternative may also cause adverse impacts to wetlands in the project areas. Studies show that construction of Alternative C would potentially impact between 4 and 5 ha (9 and 12 acres) of wetlands. This is significantly higher than other alternatives considered for the bridge replacement projects.

Like Alternative B, one of the existing bridges must continue to be maintained to provide access for residents living on the island between the main and overflow channels of the Big Hole River.

E. Preferred Alternative

Alternative A-2 (Build West Bridge Near Present Crossing and East Bridge Upstream) is the Preferred Alternative and is the only build alternative being analyzed in the Environmental Assessment. As indicated previously in this Part, this alternative would build a new bridge immediately upstream from the existing west structure and a new bridge about 50 m (165 feet) upstream from the existing east bridge. The No Build Alternative is being analyzed in the Environmental Assessment for the purposes of providing a contrast or comparison with the Preferred Alternative.

1. Reasons for Selection

Alternative A-2 has been identified as the Preferred Alternative for the proposed bridge replacements near Glen. This alternative was preferred because:

- the proposed alignment for the new bridges and roadway would be consistent with MDT's geometric design standards for design speed and road and bridge width;
- it results in relatively minor impacts to lands within the Glen FAS and would not affect facilities or the use of the recreation site by the public;
- the proposed alignment would cause only minor impacts to wetlands particularly when compared to Alternatives B and C;
- impacts to private property and residents of the project area are minor and their would be no need to relocate any residents as with Alternative A-1;
- the proposed alignment improves sight distance at both crossings; and
- the existing bridges and roadway can remain in service during construction resulting in savings for traffic control and detour costs.

Alternative A-2 was preferred because the No Build alternative does not satisfy the specified purpose and need for improvements to the east and west bridges. Both bridges are about 90-years-old and are considered to be functionally obsolete and structurally deficient. The structures are too narrow to provide for two lanes of traffic and load limitations have been established for each bridge which restricts use by trucks carrying otherwise legal-weight loads. Beaverhead and

Madison Counties would also continue to be liable for the operation and maintenance of the deteriorating structures if no action is taken to replace the bridges. This liability could become more costly to local governments as the structures continue to age and deteriorate and the risk of a failure increases. The limitation on the use of the bridges by some large vehicles inconveniences local residents and could potentially place property and lives at risk in extreme emergencies like fires.

Conditions relating to the No Build Alternative provide the basis for establishing the Purpose and Need for this proposed action as stated in Part II. Part II of this document indicates that the No Build Alternative does not meet the traveling public's needs in terms of traffic safety considerations and adherence to geometric design standards for bridges.

2. Description of the Preferred Alternative

The proposed new west bridge would have an overall length of 46 m (151 feet) and a deck width of 7.2 m (24 feet) between faces of rails. T101 bridge rail would be used over the length of the bridge. The new bridge would be supported by prestressed concrete beams set on end bents made of driven pipe piles and a round pier set on a pipe pile footing near the center of the channel. The end bent at the southwest corner of the new bridge would have a turned back wing designed to tie into adjoining bank stabilization. The bridge's center pier would be a single column hammerhead designed to accommodate the multidirectional flow characteristics of the channel at this location. The pier column would be supported by a single drilled shaft of a similar diameter.

The proposed new east bridge would be a clear span structure with an overall length of 29 m (95 feet) and a deck width of 7.2 m (24 feet) between faces of rails. T101 bridge rail would also be used over the length of the bridge. Like the west bridge, the new east structure would be supported by prestressed concrete beams set on end bents made of driven piles. The end bents would be skewed to match the flow direction of the river overflow channel.

The approaches to the structures would have a typical section designed to accommodate a 7.2 m (24 feet) wide roadway with gravel surfacing. The road work will begin about 380 m (1,245 feet) southwest of the new west bridge and continue on a new location prior to joining the existing roadway about 450 m (1,475 feet) southeast of the new east bridge. The appropriate design speed for these bridge replacements is 50 km/h (30 mph).

FIGURES 4 and **5** show the proposed alignment, preliminary construction limits, and required right-of-way for the Preferred Alternative.

Due to the minimal distance between the proposed bridges and because the alignment for one project directly connects to the other project, BR 9001 (20) and BR 9029 (9) would be administered and constructed under one contract. The proposed projects are currently scheduled to be let to contract in September, 1999.

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	BR 9001(20)	9

3+23.59
U.G. TEL. X-ING
DEPTH UNKNOWN

PI = 2+38.00
Δ = 47° 44' 00"
R = 125 m
T = 55.31 m
L = 104.14 m
E = 11.69 m

Big Hole River

T. 4 S.
R. 9 W.

STA. 0+00.00 METRIC P.O.T.
ON COUNTY ROAD
BEG. BR 9001(20)

STA. 5+00.00 METRIC P.O.T. BK.
END BR 9001(20)

DETOUR ROAD RT.
SEE DETAIL

0+23.50
2.286m x 11.4m SSPP IN PL.
REMOVE
NEW 1200mm DRAIN

0+87.16
600mm CAP DRAIN IN PL.
REMOVE
NEW 600mm DRAIN

2+20.00
NEW 450mm
APP. PIPE RT.

3+43.00
NEW 450mm
APP. PIPE RT.

3+80.80
4.3m x 41.7m BRIDGE
IN PLACE RT. - REMOVE

4+31.20
NEW 7.2m x 50.4m BRIDGE

2+20.00
PUBLIC APPROACH RT.

3+43.00
PUBLIC APPROACH RT.

0+23.50
INLET & OUTLET DITCH

0+87.16
INLET & OUTLET DITCH

1+20.00 TO 2+80.00
OBLITERATE ROADWAY LT.

3+58.08 TO 3+77.13
GUARDRAIL EMB. WIDENING LT.

3+50.00 TO 3+80.48
GUARDRAIL EMB. WIDENING RT.

4+31.53 TO 4+50.58
GUARDRAIL EMB. WIDENING LT.

4+34.87 TO 4+53.92
GUARDRAIL EMB. WIDENING RT.

0+00.00
EL. 1,512.79

2+50.00
EL. 1,515.19

3+80.80 B.E.
EL. 1514.90

4+31.20 B.E.
EL. 1514.79

150m VC

+1.600%

+0.000%

-0.220%

150m VC

+23.50

+87.16

1+00.00
EL. 1,512.79

3+80.80
CL. 2 RIPRAP & GEOTEXTILE
(SEE BRIDGE PLANS)

4+31.20
CL. 2 RIPRAP & GEOTEXTILE
(SEE BRIDGE PLANS)

+58.08 +77.13 LT.
+50.00 +80.48 RT.

NEW METAL
GUARDRAIL

+31.53 +50.58 LT.
+34.87 +53.92 RT.

Figure 4

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	BR 9029(9)	8

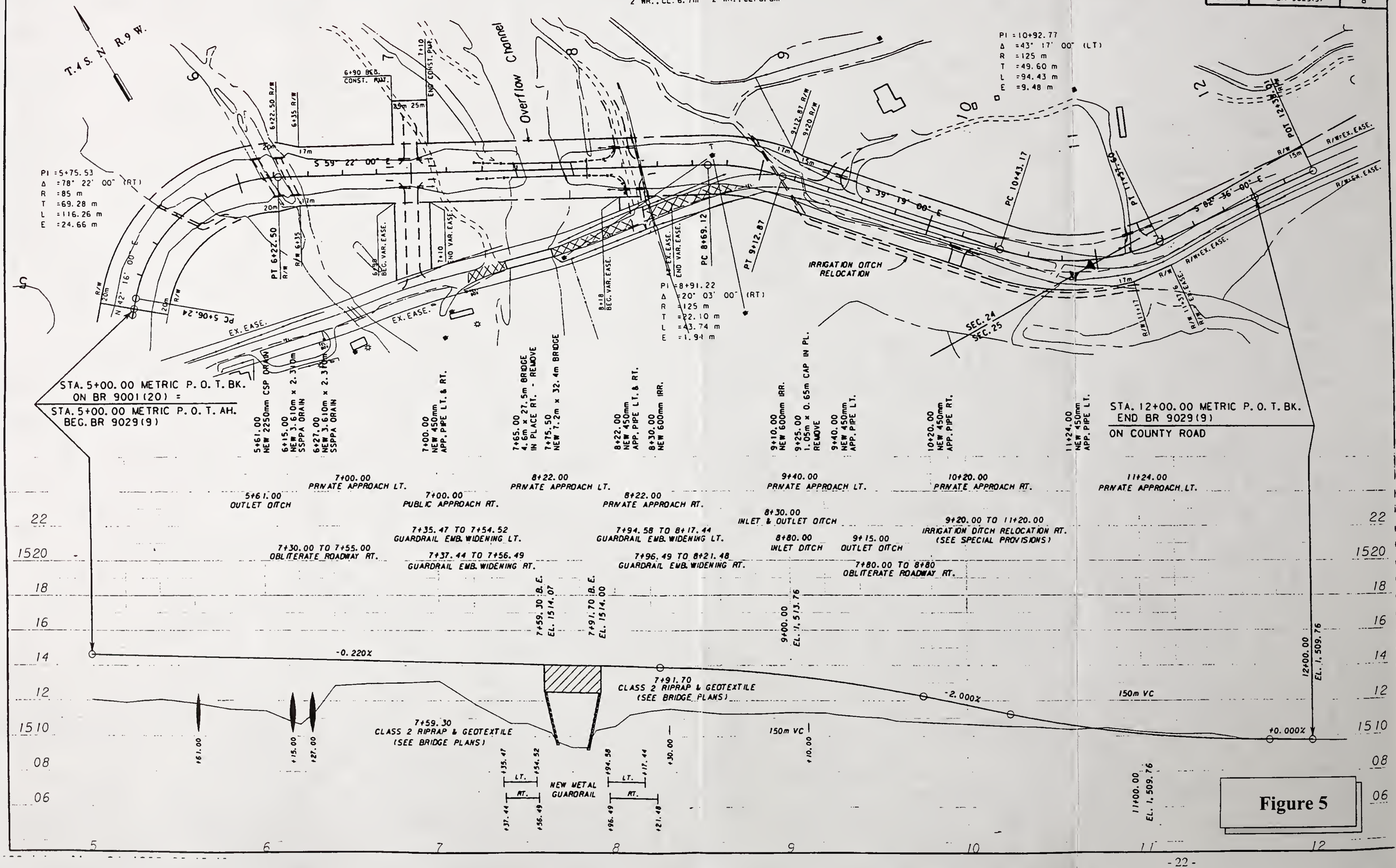


Figure 5

IV. Affected Environment and Environmental Impacts

IV. AFFECTED ENVIRONMENT and ENVIRONMENTAL IMPACTS

A. Introduction

The social, economic, and environmental factors and resources known to be affected by the proposed bridge replacements on the Big Hole River southeast of Glen and by taking no action were reviewed during the development of the Environmental Assessment. This review involved cooperation between MDT and Federal and state agencies, Beaverhead and Madison County officials, and the general public. Some impacts were not found in the study area and other impacts were so minor that detailed studies were not warranted.

This Part of the Environmental Assessment discusses the potential impacts of implementing the Preferred Alternative and of taking no action. As indicated in the preceding Part, the No Build Alternative is being analyzed for the purposes of providing a contrast or comparison with the Preferred Alternative. Only the impacts with a reasonable possibility for individual or cumulative impacts are assessed under this section. Where appropriate, measures to mitigate the adverse environmental impacts of these projects are discussed at the end of each section.

Contacts with federal and state agencies, local government, and the public helped identify issues or concerns important to the proposed action. These issues are highlighted below:

- One of the issues concerning these proposed projects is the placement of fill in the Big Hole River necessary for the construction of new bridge piers and approaches associated with the Preferred Alternative. The placement of fill will be subject to the conditions of various water quality-related permits that must be obtained for these bridge projects.

- Preliminary investigations of river hydraulics in the area of the existing crossings have shown that the confluence of the main and overflow channels of the river have moved upstream over the past 40 years. This has left a broad and unstable channel in the vicinity of the west structure. Scour is heavy along the northwest bank near the west crossing where the river makes a sharp bend and considerable quantities of riprap have previously been placed in this area to protect the existing bridge. Special measures, like the installation of guide banks or spur dikes, may be needed to redirect and improve the flow and ensure the stability of the new structures. The need for these training structures would be examined during the design of each crossing and appropriate measures would be incorporated into the bridge replacement projects.

- Concerns also exist about the potential impacts on the Glen FAS located immediately southwest and adjacent to the west bridge. The implementation of the Preferred Alternative would require new right-of-way from this recreation site. The public recreation site is protected under *Section 4(f)* of the *U.S. DEPARTMENT OF TRANSPORTATION Act* of 1966. As such, alternatives to avoid or minimize impacts to the property must be investigated. The east bridge is eligible for listing on the NATIONAL REGISTER OF HISTORIC PLACES (NRHP) and is subject to *Section 4(f)* provisions.

❖ Impacts on adjacent landowners and land uses are also important concerns.

These and other relevant issues for the proposed action are discussed in the following sections.

B. Environmental Impacts

1. Land Use Impacts

The project area is a rural area used predominantly for raising crops and livestock. Several residences exist on the island between the main river and its overflow channel and near the east end of the project area. The Glen FAS is located immediately southeast of the west bridge.

Impacts of the Preferred Alternative - The alignment of the Preferred Alternative would pass through a portion of the Glen FAS but would not affect portions of the site used for recreation. This alternative would impact undeveloped agricultural lands but would not affect residences in the project area. The improvements associated with the Preferred Alternative would not change land uses or substantially alter the rate at which lands in the area are developed.

The impacts of the Preferred Alternatives on the Glen FAS are discussed further in ***14. Section 4(f)* of the *U.S. DEPARTMENT OF TRANSPORTATION Act*** in this Part and in Part V of this document.

Impacts of the No Build Alternative - The No Build Alternative would not impact existing land uses in the corridor or inhibit future development in the project area.

2. Farmland

The U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE (NRCS) was contacted in December, 1995 about the presence of prime, unique, or important farmland in the project area. A soil conservationist from the NRCS indicated that soils in Beaverhead County have not yet been surveyed. According to the ***Soil Survey of Madison County Area*** (USDA Soil Conservation Service, 1989), none of the soils in Madison County crossed by the proposed action are designated as prime farmland if irrigated. Based on this coordination, neither the Preferred Alternative nor the No Build Alternative would impact prime, unique or important farmland.

3. Right-of-Way Impacts, Utility Impacts, and Relocations

Impacts of the Preferred Alternative - Construction of the Preferred Alternative would require an estimated 2.95 ha (7.3 acres) of new right-of-way from agricultural and residential lands adjacent to the project and from the Glen FAS near the west bridge. Another 0.19 ha (0.95 acres) of construction permits would be necessary to construct the proposed projects. Permanent easements for the placement and maintenance of riprap or other bank protection would be needed.

There are overhead power and underground telephone lines within the project limits and a

telephone cable is currently attached to both existing bridges. All potential utility conflicts would be identified and resolved prior to constructing the new bridges. The Preferred Alternative would require the relocation of about 200 m (660 feet) of an irrigation ditch located east of the overflow channel and adjacent to the existing roadway.

The Preferred Alternative would not require the relocation of any residences or businesses. All lands needed for right-of-way from private ownerships on this proposed project would be acquired by MDT in accordance with both the *UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACT* of 1970 (**P.L. 91-646**) and the *UNIFORM RELOCATION ACT AMENDMENTS* of 1987 (**P.L. 100-17**). Compensation for right-of-way acquisitions is made at "fair market value" for the "highest and best use" of the land. The right-of-way acquired for this proposed project would be conveyed to Beaverhead and Madison Counties.

Impacts of the No Build Alternative - The No Build Alternative would not require any additional right-of-way, impact utilities, or result in the relocation of residents in the project area.

4. Social Impacts

Impacts of the Preferred Alternative - **Executive Order 12898**, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, signed by President Clinton in 1994 has been observed for this proposed project. This proposed action would not have any significant impact on the location, distribution, density or growth rate of the population of the Glen area. The proposed action would not adversely affect any social or ethnic groups and it would not isolate or divide existing residential areas. This proposed project would not cause a disproportionately high adverse human health or environmental effect on minority and low income populations. This proposed project is also in compliance with *TITLE VI* of the *CIVIL RIGHTS ACT* (**42 U.S.C. 2000**) under the FHWA's regulations (23 CFR 200).

This alternative would provide traffic safety benefits and more efficient facility for road users through the construction of a wider roadway and bridge and the enhancement of sight distance within the corridor. The wider road and bridge associated with the Preferred Alternative would improve safety for pedestrians and bicyclists on the roadway. When completed, the Preferred Alternative would result in the minor increases in the amount of vehicle travel on Burma Road by allowing previously restricted large trucks and service vehicles to cross the bridge.

The proposed action would indirectly benefit local school districts by improving the route used to transport students to area schools. Similarly, the improvement of this route may benefit the providers of emergency services by slightly reducing response times from Glen to outlying areas.

Impacts of the No Build Alternative - This alternative would not require the acquisition of land and would not displace households, businesses, or other areas used for human activities. Taking no action would not influence population growth or distribution in and adjacent to the project area. Passenger cars, light trucks, and utility vehicles would continue to use the existing structure under the No Build Alternative.

5. Economic Impacts

Impacts of the Preferred Alternative - The most apparent economic impact of this alternative is the need to acquire new right-of-way from adjacent landowners. As indicated earlier, about 2.95 ha of new right-of-way will be needed to construct the Preferred Alternative. Right-of-way acquisition would permanently remove this minor amount of property from the tax roles and taxes paid on the land would be lost to Beaverhead and Madison Counties. This loss in property tax revenue would be expected to have a negligible effect on revenues for the Counties.

Impacts of the No Build Alternative - This alternative would not require any new right-of-way and would not displace any residents or businesses. However, the No Build Alternative offers no remedies to identified deficiencies of the existing bridges.

6. Floodplains

Executive Order No. 11988 and FHWA's floodplain regulations (23 CFR 650, Subpart A) requires that the effects of the proposed action be evaluated to determine if any of its alternatives encroach on the "base" floodplain. The "base" floodplain is the area covered by water from the 100-year flood. The 100-year flood represents a flood event that has a 1% chance of being equaled or exceeded in any given year.

The MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION (DNRC), Water Resources Division indicated that the 100-year floodplain of the Big Hole River in the project area has not been delineated and there are no maps available of the floodplain. As such, no formal Floodplain Development Permits will be required from either Beaverhead or Madison Counties.

According to the ***Flood Plain Management Study - Big Hole River, Silver Bow County, Montana*** prepared by the USDA Soil Conservation Service in 1986, long-term records from a gaging station located between Melrose and Glen shows that the peak flow on this reach of the Big Hole occurred in 1927. Peak flows associated with this event were 23,000 cubic feet per second (cfs) and were due in part to the failure of an upstream dam. The next highest peak flow recorded at the gaging station was 14,300 cfs in 1972. Even though high flows were recorded in 1972, no major flood damages were reported in area newspapers.

The project area has a history of localized problems associated with natural flooding. Unlike other reaches of the Big Hole River, flood flows are not generally contained within the banks of the river in this area. The section of Burma Road west of the west bridge is often flooded during seasonally high water periods.

Impacts of the Preferred Alternative - The proposed bridges would be designed to ensure that any changes in the hydraulic characteristics and flood stage elevations of the Big Hole River are insignificant. The proposed projects would comply with **Executive Order No. 11988** by not promoting or encouraging development within the floodplain or increasing flood liability hazards. MDT standard procedures and specifications would ensure that the required transverse encroachments for the new bridges will be in accordance with FHWA guidelines.

Impacts of the No Build Alternative - This alternative would have no effect on designated floodplains in the project area. There are no risks of new flooding, no impacts on natural and beneficial floodplain values, and no likelihood of incompatible floodplain development.

7. Erosion Control and Seeding

Construction of highway cuts and embankments, if left unattended, results in temporary erosion and siltation of the adjacent river. The replacement of the bridge, its piers, approach span pilings, new fills, and the construction of new approaches to the bridge would cause temporary soil surface disturbances and short-term siltation into the Big Hole River. Temporary erosion control measures like silt fences, would be employed to minimize and control siltation. Work in the river would be coordinated with the MDFWP.

An Erosion Control Plan would be submitted to the MDEQ Permitting and Compliance Division in compliance with their Montana Pollutant Discharge Elimination System Regulations (ARM 16.20.1314) for this proposed project. Best Management Practices would be used in the design of this Plan using Guidelines established in MDT's ***Highway Construction Standard Erosion Control Workplan***. The objective is to minimize erosion of disturbed areas during and following construction of this proposed project.

In accordance with **7-22-2152** and **60-2-208, M.C.A.**, MDT would reestablish a permanent desirable vegetation community along all areas disturbed by the proposed construction. A set of revegetation guidelines would be developed by MDT that must be followed by the contractor. These specifications would include instructions on seeding methods, dates, mix components, and the types and amounts of mulch and fertilizer. Seed mixes include a variety of species to assure that areas disturbed by construction are immediately stabilized by vegetative cover. The Seeding Special Provisions developed for the projects would be forwarded to the responsible County Weed Boards for review and approval.

8. Wetlands

A wetlands survey was prepared by a biological resources consultant in December, 1995. Seventeen individual wetland areas associated with the Big Hole River were delineated by the survey. These riparian wetland sites can be grouped into the three vegetative types identified and described below.

- **Riparian wetlands associated with mature black cottonwoods.** These wetlands are commonly found along the eastern and western approaches to both bridges. Mature stands of black cottonwoods border small seasonal wetlands that persist along established drainage patterns. These wetlands are linear, with widths less than 3 m (9 feet) and often less than 1 m (3 feet). Ground cover typicallly includes dense willows, woods rose, and snowberry around wetland areas of reed canarygrass, redtop bentgrass, red-osier dogwood, and beaked sedge. Emergent sedge communities are small and sporadic, appearing only in the wettest of sites. These wetlands account for about 0.05 ha (0.12 acres), or 37 percent of the wetlands in the project corridor.

- **Riparian wetlands associated with island overflow channels.** These wetlands exist within the abraded overflow channels that bisect the large island located between the east and west bridges. Such wetlands are confined to the lowest elevations within overflow channels and are usually less than 2 m (6 feet) in width. Plant communities common to these wetlands include reed canarygrass, beaked sedge, and redtop bentgrass. Willows and red-osier dogwood are also often found along channelized areas. These wetlands account for approximately 0.08 ha (0.2 acres), or 58 percent of project area wetlands.

- **Stream side communities of reed canarygrass/willow.** These sites are narrow, typically less than 0.6 m (2 feet) in width, wetlands located adjacent to streams. These wetland fringes sustained by wetted stream margins and are sparsely vegetated where severe scouring exists. Plant communities at such sites consist almost exclusively of reed canarygrass and streambank willow. These wetlands account for only 0.007 ha (0.018 acres), or about 5 percent of the wetlands in the project area.

Impacts of the Preferred Alternative - MDT's Preferred Alternative would impact an estimated 0.08 ha (0.2 acres) of the approximately 0.14 ha (0.35 acres) of Class II wetlands that occur within its project corridor.

The alignment of the Preferred Alternative was chosen to avoid and minimize impacts to wetlands while meeting the purpose and need of the project. Opportunities to replace wetlands on-site (within the right-of-way) do not exist. Therefore, the amount of wetland lost would be replaced at a suitable mitigation site identified by MDT and approved by the Montana Interagency Wetland Group. MDT, in cooperation with a private landowner, recently developed more than 20.8 ha (51.5 acres) of restored, enhanced, and new wetlands along the Beaverhead River between Twin Bridges and Dillon. The replacement wetland site, located on the Beaverhead Gateway Ranch, is situated about 24 km (15 miles) southeast of the Big Hole River-SE of Glen project area along Montana Highway 41. The wetland site is large enough to replace the wetlands impacted by these proposed Big Hole River bridge replacement projects and other highway projects listed on MDT's Wetland Ledger for Watershed #6.

Impacts of the No Build Alternative - The No Build Alternative would not impact wetlands.

9. Biological Resources

A Biological Resources Report for the proposed projects was prepared by a biological resources consultant in March, 1996. This report identified the Preferred Alternative and the other build alternatives which were under consideration for the bridge replacement projects near Glen at that time. The report concluded that the impacts on biological resources were not substantially different for any of the build alternatives. The impacts of the proposed projects on biological resources in the project area are summarized below.

a) Threatened/Endangered Species

The Biological Resources Report identifies Federally-listed Threatened/Endangered (T/E) species in the vicinity of the Big Hole River crossings near Glen in accordance with *Section 7(a)*

of the *ENDANGERED SPECIES ACT* (**16 U.S.C. 1531-1543**). The U.S. FISH AND WILDLIFE SERVICE (USFWS) lists twelve species in Montana which are considered as either threatened or endangered. Endangered species include the gray wolf, peregrine falcon, whooping crane, black-footed ferret, Interior least tern, pallid sturgeon, and white sturgeon. The grizzly bear, bald eagle, piping plover, and two plants, water howellia and the Ute ladies' tress orchid, are listed as threatened species by the agency.

Impacts of the Preferred Alternative - The Interior least tern, black footed ferret, whooping crane, piping plover, pallid sturgeon, white sturgeon, water howellia, and Ute ladies' tress orchid or their habitats do not occur in the project area. The gray wolf and the grizzly bear occur with such extreme infrequency in the project area that no impacts to the species are likely. Therefore, it was concluded that the Preferred Alternative would have **NO EFFECT** on these T/E species.

Bald eagles and peregrine falcons occur in the project area as migrants or winter residents. A bald eagle nest, located some 3.2 km (2 miles) southeast of the project area, continues to be used productively by a recorded pair of bald eagles. Areas north of Melrose (about 17 km or 11 miles from Glen) have served as historic eyries (nest sites) for peregrine falcons. Since neither of these species would be notably affected by the Preferred Alternative, it was concluded that implementation of the proposed projects is **NOT LIKELY TO ADVERSELY AFFECT** the bald eagle or peregrine falcon.

This conclusion was made since several conservation measures are under consideration by MDT's road and bridge designers that would minimize or avoid effects on bald eagles and peregrine falcons. These measures include: raptor-proofing relocated power poles; avoiding and minimizing wetland impacts and mitigating impacts on site, where possible; and avoiding and minimizing impacts on mature cottonwood trees and riparian areas.

Impacts of the No Build Alternative - The No Build Alternative would have no impact on any T/E species.

b) Fisheries

The arctic grayling and westslope cutthroat trout, both species of special concern in Montana, are known to occur in the Big Hole River in the vicinity of these proposed bridge replacement projects. However, their occurrence is rare and it is very unlikely that these species use this reach of the river for spawning. In fact, the most notable populations of these species are found upstream of Wise River and in tributaries of the upper Big Hole River. Common species of fish in this reach of the Big Hole River include brown trout, mountain whitefish, longnose sucker, white sucker, and mottled sculpin. Brown trout and mountain whitefish are the most numerous gamefish in the lower Big Hole River. Less commonly found in this portion of the Big Hole River include rainbow trout, brook trout, burbot, common carp, longnose dace, and mountain sucker.

Impacts of the Preferred Alternative - The impacts of the Preferred Alternative on fisheries would be minor. The most notable direct impact to fisheries would be the removal of riparian vegetation at the locations of the new bridge abutments. Minor temporary increases in suspended

sediments are also likely during construction of piers in the channel. Indirect impacts, like sediment deposition downstream from bridge piers, could occur. Bank stabilization measures are proposed for an area upstream from the west bridge. While such measures could improve habitat for fish, this action may also change channel hydraulics in the vicinity of the crossing.

The use of a clear span bridge at the east crossing reduces the potential for impacts from sediments and indirect impacts to the morphology of the channel.

To minimize impacts on fisheries, work in the stream channel would be coordinated with the MDFWP. The timing of work in the channel and other restrictions would be indicated as conditions of approval for the issuance of a ***124SPA*** Stream Protection Permit from the MDFWP.

Impacts of the No Build Alternative - This alternative would not impact fisheries in the project area.

c) Rare and Sensitive Plants

Several sensitive plant species were identified in the general area of the project by the MONTANA NATURAL HERITAGE PROGRAM (MNHP). However, a review of the occurrence listings for these species by a biological resources consultant showed that they do not occur in the immediate vicinity of these bridge replacement projects. No rare species were observed in the project area during field visits. Coordination with other resource management agencies did not identify the existence of sensitive plants near the bridge replacement sites. The absence of suitable habitats suggests that rare plants are unlikely to occur within the area potentially impacted by these projects. Therefore, neither the Preferred Alternative nor the No Build Alternative would impact rare or sensitive plant species.

10. Air Quality

These bridge replacement projects are located in an unclassifiable/attainment area of Montana for air quality under 40 CFR 81.327, as amended. As such, these projects are not covered under the U.S. ENVIRONMENTAL PROTECTION AGENCY'S (EPA's) **Final Rule** of November 24, 1993 on Air Quality conformity. Therefore, the proposed projects comply with *Section 176(c)* of the *CLEAN AIR ACT* **(42 U.S.C. 7521(a))**, as amended.

Projects like these bridge replacements are actions whose individual and cumulative effects would be minor and would not affect regional emissions. These conclusions can be reasonably made on the basis of analyses done for many similar projects across the country. For these reasons, neither the Preferred Alternative nor the No Build Alternative would be expected to result in adverse air quality impacts.

11. Noise

These projects involve reconstruction of the roadway and bridges with minor changes in horizontal alignment. The number of through traffic lanes would increase only on the new

structures. Due to the scope of this project and its rural location, a detailed noise analysis is not required. Design Year noise levels would not exceed the Noise Abatement Criteria 23 CFR 772. Traffic noise level increases would be insignificant with the construction of the Preferred Alternative and with the No Build Alternative.

12. Hazardous Substances

MDT reviewed the potential for the presence of hazardous waste sites in the vicinity of the proposed bridge replacement projects in December, 1994. This work did not identify any sources of hazardous substances or sources of hazardous wastes in the project area.

Impacts of the Preferred Alternative - Special provisions for salvaging the structures and disposing of treated timbers from the bridge decks only in licensed Class II landfills would be included in the contract plans for these projects.

The steel members of the existing bridges likely contain remnants of lead-based paint. The lead-based paint is not considered to be a hazardous waste until the paint is removed. No impacts from lead paint are anticipated since the bridges would be removed and reused at other locations. The new owners of the bridges would assume all potential liability for lead paint on the bridges.

The Contractor would be required to take precautions to minimize the effects of construction operations, and to prevent leakage or spilling of fluids from construction equipment.

Impacts of the No Build Alternative - This alternative would have no impacts on hazardous waste sites, generators, or substances.

13. Cultural, Archaeological/Historical Resources

A cultural resource consultant performed a cultural resource survey in the vicinity of the proposed bridge replacement projects in April, 1996. Cultural resources in the area and the potential impacts of these proposed projects on identified resources are discussed below.

a) Historic Bridges (24BE1564 and 24MA413)

Both Big Hole River bridges (24BE1564 and 24MA413) were recorded during past historic bridge inventories conducted by the (former) MONTANA DEPARTMENT OF HIGHWAYS (MDOH). Both bridges were determined eligible for the NRHP by MDT and the MONTANA STATE HISTORIC PRESERVATION OFFICE (SHPO) in 1985. However, reviews of the west bridge during 1996 showed that the structure is in a highly deteriorated condition and recent modifications to the structure (the addition of modern guardrail) have affected its historic integrity. For these reasons, MDT no longer considers the 24BE1564 to be NRHP-eligible. SHPO concurred that 24BE1564 was no longer NRHP-eligible in correspondence dated December 9, 1996. A copy of SHPO's letter can be found in APPENDIX D.

Impacts of the Preferred Alternative - The Preferred Alternative would affect 24MA413 since the existing structure would be removed from its present location following the construction of

the new east crossing. This alternative would bypass the east bridge since the new crossing would be located about 50 m (165 feet) upstream on the overflow channel. MDT determined the Preferred Alternative would have No Adverse Effect on 24MA413 since the structure would be treated under the provisions of the Roads and Bridges Historic Preservation Plan. A letter documenting SHPO's concurrence with this Determination of Effect is in APPENDIX D.

The Highway Bridge Replacement and Rehabilitation Program for Historic Bridge Preservation requires states proposing the demolition of historic bridges as part of a replacement project (under **23 U.S.C. 144(o)(4)**, as amended) to make the bridges available for donation to a state or local entity or to a responsible private entity. As a condition of this donation, the agency or private entity must: 1) enter into an agreement to maintain the bridges and features that preserve their historical significance; and 2) assume all future legal and financial responsibilities for the structures, including an agreement to hold the state's transportation agency harmless in any liability action.

The existing bridges would be removed from their abutments and offered to potential new owners under the Adopt-A-Bridge Program specified in the draft Roads and Historic Bridges Preservation Plan. Following advertisements for adoption in local newspapers and public service announcements on area radio stations, new owners were found for both the east and west structures. The east bridge was adopted by the Dillon Rotary Club and would be used in the development of a recreational trail outside Dillon. The west structure was adopted by a group of landowners near Darby, who plan to move and use it to access several homes in the area.

Federally-funded actions affecting historic bridges that are on, or considered as eligible for the NRHP also must comply with *Section 4(f)* of the *U.S. DEPARTMENT OF TRANSPORTATION Act* of 1966, as amended (**49 U.S.C. 303**). This compliance is discussed later in this Part.

Impacts of the No Build Alternative - The No Build Alternative would not affect 24MA413.

b) Indian Burial Site (24BE899)

A previously recorded cultural site (24BE899), rumored to be a Shoshone-Bannock burial ground, is located within the boundaries of the Glen FAS. The terrain near the site is disturbed and shows repeated impacts from road and fishing access use. The fact that no remains or other archaeological materials were found during field reviews of the site by a cultural resource consultant suggests that the burial area remains undisturbed.

Impacts of the Preferred Alternative - The alignment of the Preferred Alternative is located north of the existing west bridge and would have no direct or indirect effects on the burial site.

Impacts of the No Build Alternative - This alternative would not impact 24BE899.

14. *Section 4(f)* of the *U.S. DEPARTMENT OF TRANSPORTATION Act*

Section 4(f) of the *U.S. DEPARTMENT OF TRANSPORTATION Act* of 1966, as amended, applies to Federally-funded transportation actions that affect sites on or eligible for the NRHP,

publicly-owned parks, recreation lands, and wildlife and waterfowl refuges. The proposed action would not impact any public parks, or wildlife or waterfowl refuges. However, the proposed bridge replacements would affect the MDFWP's Glen FAS and the NRHP-eligible existing east bridge (24MA413).

Impacts of the Preferred Alternative - This alternative would affect the NRHP-eligible east bridge over the Big Hole River Overflow (24MA413) since the structure would be removed following construction of the new crossing. As indicated earlier, the old bridge was advertised for adoption and a new owner, the Dillon Rotary Club, was found for the structure. The structure would be moved and incorporated into a recreational trail on the outskirts of Dillon.

The Preferred Alternative would also affect the Glen FAS since the proposed alignment would require 0.62 ha (1.54 acres) of land from the recreation site for new right-of-way. There would be no change in the access or public use of the site. The Preferred Alternative would not cause adverse effects on the recreational use of the Big Hole River. Floating activity on the Big Hole River would not be inhibited since the existing boat ramp at the FAS would not be affected and adequate clearance would be provided for floaters passing beneath the new structures.

The effects of the proposed action on these *Section 4(f)* properties and measures to mitigate identified impacts are discussed in Part V of this document.

Impacts of the No Build Alternative - This alternative would not affect any sites on or eligible for the NRHP, publicly-owned parks, recreation lands, or wildlife and waterfowl refuges.

15. *Section 6(f)* of the *NATIONAL LAND & WATER CONSERVATION FUND Act*

Section 6(f) of the *NATIONAL LAND & WATER CONSERVATION FUND ACT* (**16 U.S.C. 460**) requires that coordination be done to determine if federal funds were used to acquire or improve any lands in the project area for recreation or water conservation purposes. Initial contacts with the MDFWP determined that the Glen FAS was developed with federal monies from the Land and Water Conservation Fund and that *Section 6(f)* involvement at the site had been eliminated due to a Land and Water Conservation Fund consolidation project undertaken by the agency in 1996. However, correspondence from the agency in September, 1998 stated the earlier information provided was incorrect and the Glen FAS is still encumbered with Land and Water Conservation Fund. Copies of MDFWP correspondence on this matter is included in APPENDIX D.

Impacts of the Preferred Alternative - The potential impacts of the proposed action on the *Section 6(f)* property at the Glen FAS are similar to those described previously in **14. *Section 4(f)* of the *U.S. DEPARTMENT OF TRANSPORTATION Act***. Based on current design plans, about 0.62 ha (1.54 acres) along the northwestern edge of the FAS must be acquired for right-of-way to construct the approach to the proposed bridge over the Big Hole River.

As mitigation for using *Section 6(f)* land from the Glen FAS, MDT must provide replacement land of reasonably equivalent usefulness and location and of at least comparable value. This proposed project, as well as MDT's Silver Star North & South, Southeast of Ennis, Four

Corners-West, Big Hole River-West of Melrose, and Riceville Hill projects would cause minor impacts at other MDFWP fishing access sites acquired or developed with *Section 6(f)* funds.

The area of impact at each of these sites is minor, typically 0.2 hectares (0.5 acres) or less. Finding and acquiring small replacement areas in the vicinity of each impacted *6(f)* site may be difficult and such areas may be of limited usefulness to the MDFWP. Therefore, MDT intends to purchase the 11.7 hectare (29.0 acre) Mother El parcel adjacent to Lewis and Clark Caverns in Jefferson County as replacement land for a new fishing access or recreational site. This purchase would be used to mitigate the impacts of MDT highway projects on the Glen FAS and the other affected *6(f)* sites identified above. This proposed mitigation has been discussed with the MDFWP and is acceptable to the agency. Attached in APPENDIX C is correspondence with MDFWP dated April 15, 1998 and April 27, 1998 documenting MDT's mitigation efforts.

As a first step in implementing this mitigation, MDT has appraised the *6(f)* lands impacted by the highway projects and established reasonable values for each property. The appraised value of impacted lands at *6(f)* sites has been submitted to MDFWP for review and approval. Correspondence from MDFWP indicating the agency's concurrence with MDT's impact assessment and proposed *Section 6(f)* mitigation can be found in APPENDIX D.

Impacts of the No Build Alternative - The No Build Alternative would not affect lands acquired or developed with *Section 6(f)* funds.

16. Visual Impacts

The project area is situated in the northern portion of a broad valley drained by the Big Hole and Beaverhead Rivers. This portion of the valley is bordered by the Pioneer Mountains to the west, the Highland Mountains to the north, and the Ruby Range to the east. The terrain in the project area near Glen is generally flat bottom land formed over a long period of river deposition and erosion.

Within the area of the existing Big Hole River crossings, the dominant man-made features include several residences with yards and outbuildings, lands used for livestock grazing and raising crops, and the Glen FAS. Natural features in the project area consist primarily of native grasses, large deciduous trees and other riparian vegetation associated with the Big Hole River, and the river and its overflow channels. Because of the nature of the project area, the viewshed (the land area seen from the project) is dominated by background landscapes (the surrounding mountains) and foreground landscapes (residences, corrals, buildings associated with livestock raising, and the riparian corridor associated with the Big Hole River).

The major viewer groups that see the existing facility and those who will see the completed project include residents in the immediate area of the river crossings, recreational users of the Big Hole River and Glen FAS, and those traveling through the area (mostly local residents) on Burma Road. Views from the road are seen by the users of the existing facility including area residents traveling to other destinations and travelers passing through the project area on their way to the Glen FAS or other recreation sites along the Big Hole River east of the project area. Occasionally, pedestrians may be present on the roadway.

Impacts of the Preferred Alternative - The Preferred Alternative would not alter views of the background landscape in the project area. However, this alternative would cause minor changes to the foreground landscape of the project corridor for users of the facility. The width of the new bridges and intervening road would be substantially greater than that of the existing facility due to its increased road surface area and expanded right-of-way and clear zone. Users of the facility would also notice changes in the appearance of the bridges. This change may be relatively noticeable for residents and others familiar with the crossings since the new bridges would not be supported by elaborate trusses with overhead connections.

The alignment of the approaches and the new west bridge would be similar to the existing crossing. Minor changes in the foreground landscape would occur due to the removal of riparian vegetation near the north side of the existing bridge. The new east crossing would be located considerably upstream from the existing bridge and in similar terrain. The east crossing and road would be situated a greater distance from a residence than at present. This shift in alignment would cause minor but beneficial changes in the view of the road for the residents of the ranch property and would alter the view from the road for motorists on the approaches to the new east bridge.

The potential visual impacts of the project would be mitigated by the construction of uniform and smooth cut and fill slopes shaped to blend with the surrounding terrain. Roadside slopes and other disturbed areas would be revegetated with desirable plants to control erosion and inhibit invasion by noxious weeds.

The Preferred Alternative would result in minor, short-term visual impacts during the period of construction including vegetation clearing until revegetation occurs; the stockpiling excavated material, equipment, and material; and dust and debris from construction activities.

Impacts of the No Build Alternative - There would be no visual impacts associated with the No Build Alternative.

17. Secondary and Cumulative Impacts

Secondary (or indirect) effects are those that are caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable. Secondary impacts are generally induced by the initial action and comprise a wide variety of effects such as, changes in land use, water quality, economic conditions, or population density. The secondary impacts of this proposed project are addressed in appropriate sections of this Part.

Cumulative impacts are those effects which result from the incremental consequences of an action when added to other past and reasonably foreseeable future actions. Projects planned, under construction, or recently completed by MDT in its Butte District were reviewed to help assess the cumulative impacts of this project. This review showed that maintenance projects (milling and overlay work) to improve driving surfaces are presently underway on Interstate 15 between Dillon and Melrose. Road reconstruction work is also underway on Montana Highway 287 between Twin Bridges and Sheridan.

The only other known planned projects in the general vicinity of the proposed bridge replacements are two highway reconstruction projects and a bridge replacement on the Big Hole River near Wisdom. The road reconstruction projects include Silver Star N & S project on Montana Highway 41, STPP 29-1(31) 50, planned for Fiscal Year 1999 and the Twin Bridges-North project on Montana Highway 41, STPP 29-1() 43, planned for Fiscal Year 2001. The proposed bridge replacement project on the Big Hole River near Wisdom is planned for implementation in Fiscal Year 1999.

Because the timing of construction activities would not coincide and the projects are located considerable distances from the proposed bridge projects on the Big Hole River near Glen, none of these other MDT projects would have significant cumulative environmental impacts on the proposed Big Hole River bridge replacements. The proposed bridge replacements would also have no significant cumulative environmental impacts on these other road reconstruction or bridge replacement projects in this part of MDT's Butte District.

18. Construction Impacts

Impacts of the Preferred Alternative - Bridge and road construction activities associated with the Preferred Alternative would cause temporary inconveniences to the traveling public and to recreationists on the Big Hole River. These disturbances include longer travel times, detours, temporary closures of the road and/or bridges, and the noise and dust generated by construction equipment. These impacts can be expected to occur for between six months to one year after the proposed construction begins. Few disruptions to traffic are anticipated during construction since the existing bridges and road would be used as a detour route.

The Contractor would be subject to all state and local laws to minimize construction noise by having mufflers on all equipment. Dust generated through construction activities and road use would be controlled by the required use of either water or another approved dust suppressant. All work related to the Preferred Alternative for the proposed bridge replacement project would be subject to the provisions included in the current edition of the ***Standard Specifications for Road and Bridge Construction*** as adopted by MDT and the Montana Transportation Commission.

Traffic control plans would be prepared by MDT and included in the contract plans and specifications for the projects. These plans may include signing provisions; weekend and holiday work period designations; timing of any anticipated road or bridge closures; limitation of work during the winter; and advance notification of any extended road or bridge closures.

Construction of the Big Hole River bridges near Glen may temporarily create jobs and the need for local goods and services. This could result in short-term economic benefits to the surrounding area of Beaverhead and Madison Counties. Completion of this project would not cause any long-term changes in the economy of the area.

Impacts of the No Build Alternative - The only construction impacts associated with this alternative would be related to the completion of maintenance activities on the existing road and bridges.

19. Permits Required

The No Build Alternative would not require any permits. However, the Preferred Alternative for the proposed Big Hole River bridge replacement projects near Glen would require the following permits to be obtained prior to any relevant disturbances:

- ***Section 3(a)* Authorization/*124SPA*** - The proposed projects would be in compliance with the provisions of both Water Quality for *Section 3(a)* authorizations under **75-5-401 (2) M.C.A.** and Stream Protection under (**87-5-501** through **509 M.C.A.**, inclusive).

  A ***124SPA*** Stream Protection Permit is required by the MDFWP.

  All work would also be in accordance with the *WATER QUALITY ACT OF 1987* (**P.L. 100-4**), as amended.

- ***Section 402* Permit** - This proposed project would require a *CLEAN WATER ACT* (**33 U.S.C. 1251 - 1376**) - *Section 402*/Montana Pollutant Discharge Elimination System Permit from the MDEQ Permitting and Compliance Division.

- ***Section 404* Permit** - A *CLEAN WATER ACT* (**33 U.S.C. 1251 - 1376**) - *Section 404* permit from the U.S. ARMY CORPS OF ENGINEERS (COE) would be required for placing fill in wetlands or for the discharge of dredged or fill material associated with bridge and pier construction or bank stabilization. The proposed project may require an "Individual" permit rather than a "Nationwide" permit under the provisions of 33 CFR 330.

- **Floodplain Development Permit** - No formal Floodplain Development Permit would be required from either Beaverhead or Madison Counties since the 100-year floodplain of the Big Hole River has not been delineated in the project area.

The Area Manager of the Southwestern Land Office of the MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION (DNRC) was contacted to determine if the Big Hole River is considered navigable in the Glen area. The DNRC indicated that the State of Montana does not claim navigability in this reach of the Big Hole River and the agency would not be involved in the permitting for the crossing.

V. Draft *Section 4(f)* Evaluation

V. DRAFT *Section 4(f)* EVALUATION

A. Introduction

According to 23 CFR 771.135(a) "The Administration may not approve the use of land from a significant publicly owned public park, recreation area, or wildlife and waterfowl refuge or any significant historic site unless a determination is made that:

(i) There is no feasible and prudent alternative to the use of land from the property; and

(ii) The action includes all possible planning to minimize harm to the property resulting from such use."

The purpose of this *Section 4(f)* Evaluation is to identify affected and potentially affected properties, assess the impacts of the proposed bridge replacement projects on *4(f)* properties, and to demonstrate the proposed projects southeast of Glen comply with the requirements of *Section 4(f)* of the *U.S. DEPARTMENT OF TRANSPORTATION ACT* of 1966 (**49 U.S.C. 303**), as amended.

B. *Section 4(f)* Properties

1. Properties Considered

The project area contains three properties which were examined for their applicability to *Section 4(f)*. Cultural resource evaluations of potential historical and archaeological sites and contacts with the administrators of other properties provided the basis for determining which sites would be afforded protection under *Section 4(f)*.

Properties considered in this evaluation are identified below and shown in **FIGURE 6**:

- The existing bridges over the Big Hole River southeast of Glen. Both the east and west structures (24MA413 and 24BE1564, respectively) were previously recorded and determined eligible for the NRHP by MDT and the Montana SHPO in 1985. A review of the west bridge in 1996 determined that it is no longer NRHP-eligible due to its highly deteriorated condition and because recent modifications to the structure have affected its historic integrity. Therefore, only the east bridge (24MA413) is subject to *Section 4(f)*.

- The Glen Fishing Access Site, a public fishing access on the Big Hole River, is located near the existing west bridge. Coordination with the MDFWP's Parks Division, the administrator of the property, determined that the fishing access site is a significant public recreation site and subject to *Section 4(f)* prior to any conversion of use.

The Preferred Alternative would impact both the east bridge and the Glen FAS. These *Section 4(f)* properties and the potential impacts of the Preferred Alternative on them are described in the following paragraphs.

Figure 6:
Section 4(f) Properties Considered

2. Big Hole River Overflow Bridge (24MA413) - East Structure

The east bridge (24MA413) is a 27.4 m (90 feet) long, single span Warren through-truss with a 4.7 m (15.3 feet) wide deck. The bridge, which spans an overflow channel of the Big Hole River, was constructed by an unknown contractor around 1910. The east bridge represents one of the earliest steel highway Warren through trusses in the state. Photographs of the east bridge are presented in **PLATE 2** in Part I.

The Preferred Alternative would require that this NRHP-eligible bridge be removed after construction of the new bridge across the overflow channel is completed. The east bridge has already been adopted by the Dillon Rotary Club and would be moved and incorporated into a recreational trail at the completion of the proposed bridge replacement.

3. Glen Fishing Access Site

The characteristics and use of the Glen Fishing Access Site are described in the following paragraphs:

a) Site Map - **FIGURE 7** shows the location, property boundaries, and layout of the Glen FAS in relation to the existing county road (Burma Road) and the Big Hole River bridges southeast of Glen. The FAS is located in the S½ SW¼ of Section 24, Township-4-South, Range-9-West P.M.M. The Glen FAS is located entirely within Beaverhead County, Montana.

b) Size of the Affected Property - The Glen FAS consists of 3.18 ha (7.85 acres) of land on the west bank of the main channel of the Big Hole River. A survey plat showing the boundaries of the property is included in APPENDIX D of the Environmental Assessment.

c) Ownership - The property for the Glen FAS was acquired from John and Jane Pettingill in 1965 by the (former) State of Montana Department of Fish and Game. A copy of the Warranty Deed for the property is contained in APPENDIX D.

d) Function of or Available Activities - The property is a public fishing access site on the Big Hole River that provides river access for floaters or shore fishermen. Limited camping and parking spaces for angler vehicles are also available within the site. Photographs of the Glen FAS are presented in **PLATE 3**.

e) Description and Location of Existing Facilities - Facilities present at the Glen FAS include a boat ramp located near the west bridge, toilet, a few picnic tables and parking areas for single vehicles and vehicles with trailers.

f) Access and Usage - The FAS can be accessed by traveling south from Glen on the I-15 frontage road for 1.6 km (1 mile) and then east on Burma Road for 1.2 km (0.75 miles).

Angler use of the Big Hole River in the vicinity of the Glen FAS is high. According to recreational use data from the Montana River Information System, fishing activity on the lower river (from the old Divide Dam to the mouth) has increased from 13,474 angler days in 1982 to

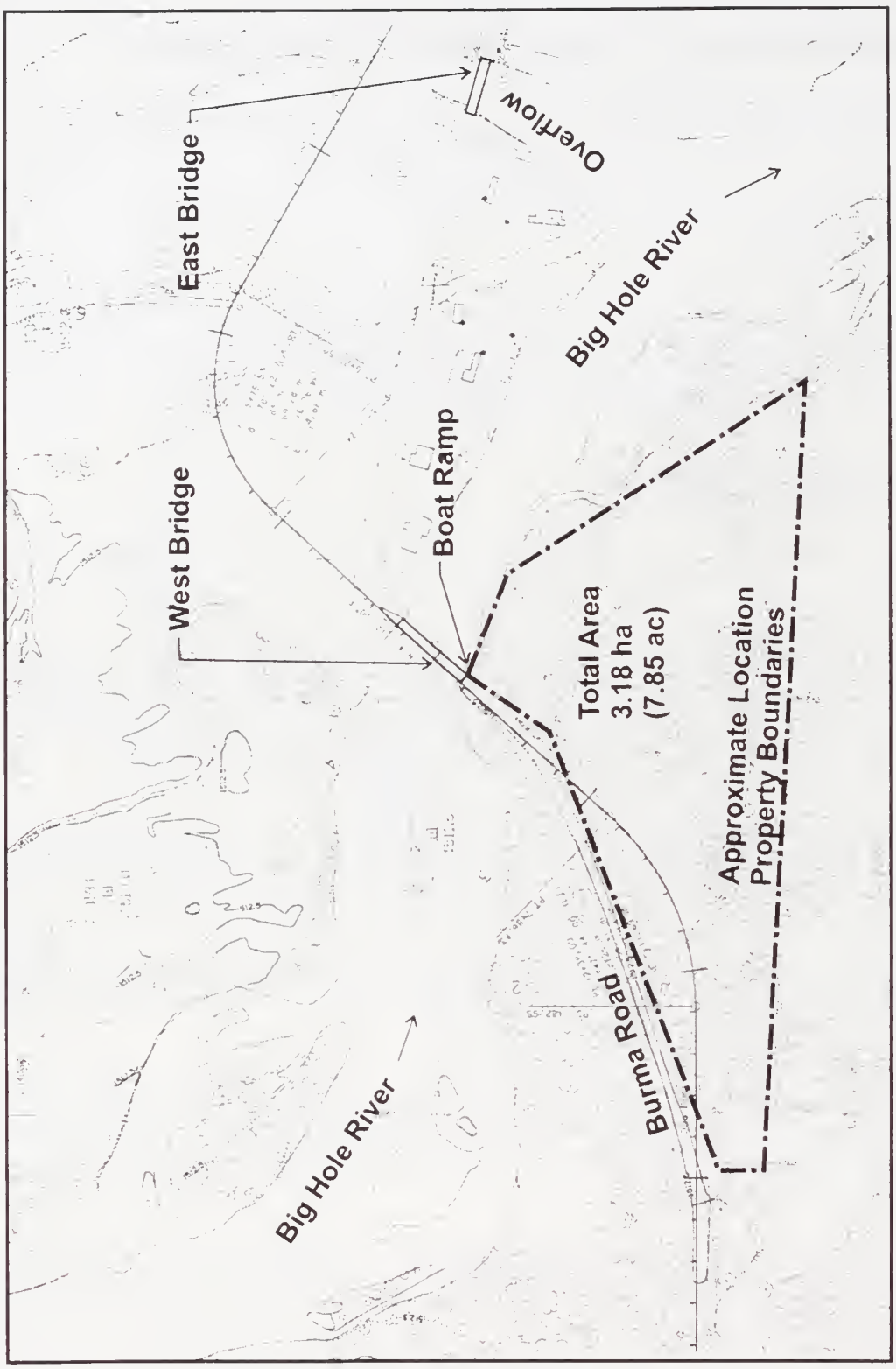


Figure 7:
Map of Glen FAS
and Surrounding Area

Plate 3: Photographs of Glen FAS

Boat Ramp at the Glen FAS

Located Just Downstream from Existing West Bridge

more than 27,500 angler days during 1991. This reach of the Big Hole is classified as one of Montana's top "blue ribbon" trout fisheries, and its annual hatches of salmon flies during the late spring and early summer are well known.

The MDFWP maintains a traffic counter at the Glen FAS to monitor use of the recreation site. MDFWP estimates that about 15,000 people currently use the Glen FAS each year.

g) Relationship to Other Similarly Used Lands - The Glen FAS is one of several public fishing access sites that exist along this reach of the Big Hole River. Other fishing access sites in the vicinity include Salmon Fly at Melrose, Brownes Bridge and Kalsta Bridge between Melrose and Glen, and Notch Bottom located some 16 km (about 10 miles) east of the Glen FAS on Burma Road.

h) Applicable Clauses Affecting Ownership - There are no clauses in the Warranty Deed that affect the State of Montana's ownership of this property. The Glen FAS was developed with the assistance of federal money through *Section 6(f)* of the *Land and Water Conservation Fund Act* (**16 U.S.C. 460**) and the property is still encumbered with the fund.

i) Unusual Characteristics of Property - Cultural resource investigations noted that a burial ground associated with the Shoshone-Bannock Tribes may exist within the boundaries of the FAS. The site will not be affected by the Preferred Alternative.

C. Impacts on *Section 4(f)* Properties

This section describes the potential impacts of the Preferred Alternative on *Section 4(f)* properties in the project area. This alternative would construct a new bridge just upstream from the existing Big Hole River crossing (west bridge) and provide a new overflow bridge substantially upstream from the existing overflow (east) structure. Approaches would be built to match the locations and elevations of the new east and west bridges.

1. Impacts to the Big Hole River Overflow Bridge (24MA413)

The proposed action would remove the existing bridge following the construction of the new bridge across the Big Hole River overflow and its approaches. MDT has determined that the proposed action will have an adverse effect on the historic structure. Leaving the overflow bridge in place is not prudent because there would be no entity available to maintain the structure and it would comprise a safety hazard and nuisance.

2. Impacts to the Glen FAS

Because the new Big Hole River bridge (west bridge) will be located slightly upstream from the existing structure and changes to the alignment of the west approach to the bridge will be necessary, new right-of-way must be acquired from the north edge of the Glen FAS property. MDT's current design for the proposed action will require approximately 0.62 ha (1.54 acres) of land from the Glen FAS for new right-of-way to accommodate construction of the new bridge and its west approach. This proposed right-of-way acquisition will reduce the total area of the

Glen FAS by about 19%. Existing vegetation will have to be cleared along the new alignment and within the new right-of-way.

The proposed action may affect a few areas of perimeter fencing along the north western edge of the FAS but will not impact any other existing features or alter the use of any facilities. The approach to the Glen FAS from Burma Road will remain in the same general location but will be reconstructed with the proposed action. Temporary disruptions to travel on the county road and to traffic in and out of the FAS may occur during the reconstruction of the approach. **FIGURE 8** shows the approximate right-of-way line and construction limits for the proposed action in the vicinity of the Glen FAS.

D. Avoidance Alternatives

Alternatives to the proposed action that would avoid impacts to *Section 4(f)* properties are discussed in the following paragraphs. The reasons avoidance alternatives are not feasible for this project are also discussed below.

1. No Build

The No Build Alternative would not impact the Big Hole River Overflow Bridge (24MA413) or the Glen FAS since no actions other than those associated with the continued maintenance of the existing structure and its approaches would be undertaken. There would be no need for the acquisition of new right-of-way on the approaches to the Big Hole River bridge (west structure).

However, this alternative would not satisfy the purpose and need for this proposed action as specified in the Part II of the Environmental Assessment. The No Build alternative would not improve the structural and geometric design deficiencies of the existing east bridge, remedy the poor sight distance on its approaches, increase the road's capacity to accommodate present and future traffic volumes, or enhance the traffic safety and convenience of this off-system road. 24MA413 and the existing west bridge are structurally deficient and functionally obsolete and further investments to preserve the structures cannot be justified. This alternative is not consistent with the intentions of Beaverhead County and Madison County to replace the existing bridges.

For these reasons, the No Build Alternative is not a feasible and prudent alternative for avoiding impacts to the existing NRHP-eligible bridge or the Glen FAS.

2. Close the Existing Bridges

Impacts to 24MA413 and the Glen FAS could be avoided if the existing bridges were closed and through traffic on Burma Road was suspended. This would eliminate the need to upgrade the present bridges and would avoid taking any new right-of-way from the adjoining Glen FAS since approach reconstruction work would be unnecessary. This alternative would not require construction or cause new impacts on the adjacent lands or the Big Hole River. The Glen FAS would continue to be accessible from the west via Burma Road. However, local residents, the traveling public, and users of the fishing access sites along this reach of the Big Hole River

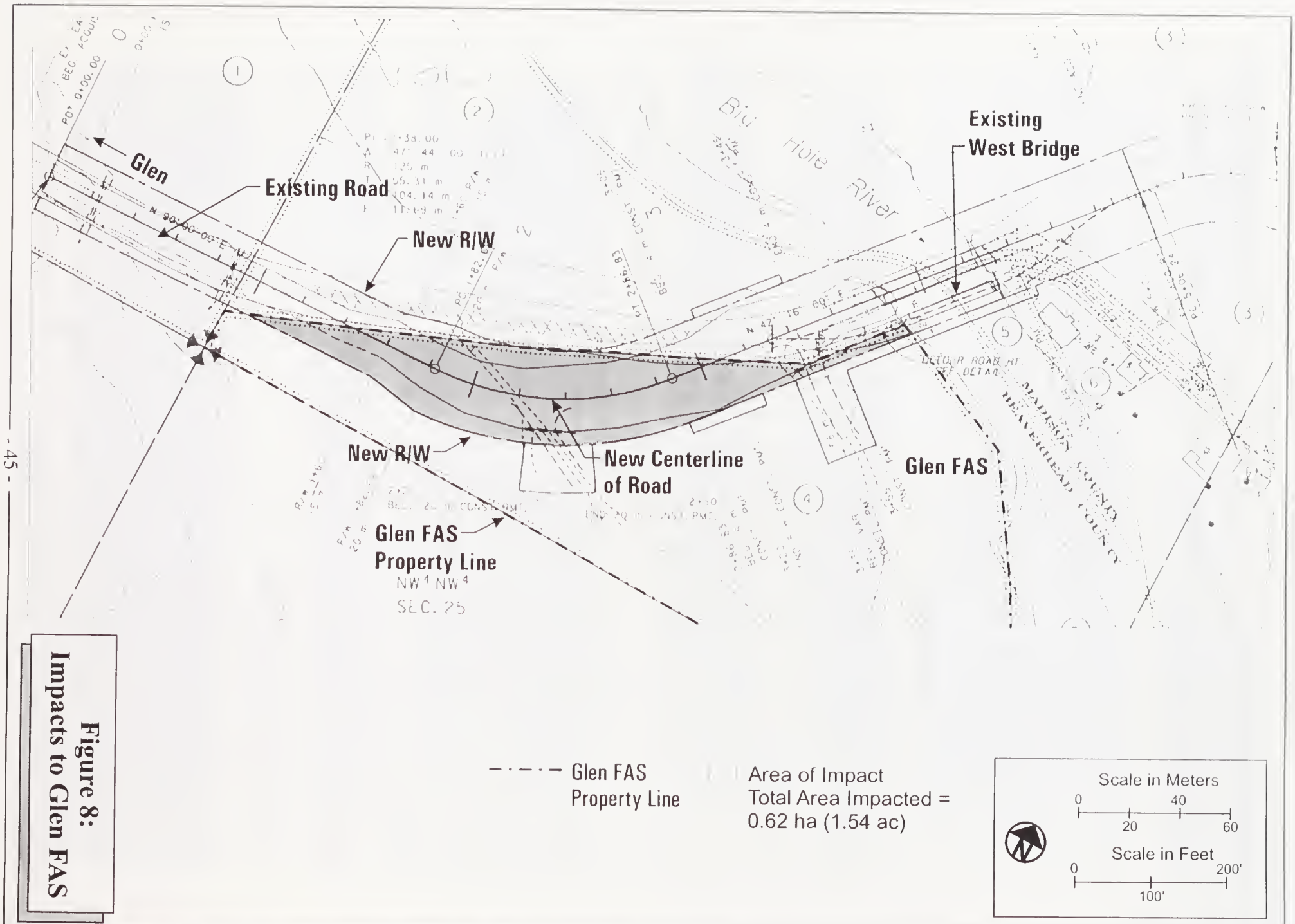


Figure 8:
Impacts to Glen FAS

would be unduly inconvenienced by this alternative.

Closure of the bridges would eliminate access to residents of the island between the Big Hole River and its overflow channel. Motorists wishing to travel between Glen and Twin Bridges would be required to drive 15 km (9 miles) farther on alternate routes if Burma Road was no longer open to through traffic. Use of alternate routes would increase travel times between Glen and Twin Bridges by at least 12 minutes. Requiring school busses and emergency vehicles to traverse the longer alternate routes would be detrimental to public safety and convenience. The closure of Burma Road would also adversely impact the public's recreational use of the Big Hole River since lengthy detours would be required to access sections of river to the east and west of the existing crossings.

The nomination of the existing bridges for replacement suggests that closure of the structures (and the resulting suspension of through travel on Burma Road) is unacceptable to Beaverhead and Madison Counties. Closure of the bridges would be inconsistent with the intentions of both local governments to provide a new river crossing. Based on these considerations, closing the existing bridges is not feasible and prudent and does not meet the purpose and need for the proposed projects.

3. Rehabilitate the Existing Bridges

Impacts to *Section 4(f)* properties could be avoided if the existing bridges were rehabilitated rather than replaced on new locations. Rehabilitation would salvage usable parts from the existing structures and install new members and pieces where needed. No new right-of-way would be needed from the Glen FAS property since the existing structure would be repaired in-place and no work on the approaches to the Big Hole River (west) bridge would be done.

This alternative would not meet AASHTO recommendations and/or MDT geometric design standards for design speed and road width. 24MA413 could not be sufficiently upgraded to provide two driving lanes without compromising its historic characteristics. Experience has shown that the costs associated with rehabilitating the structure would be nearly the same as building a new structure due to the labor-intensive nature of the work.

Since Beaverhead and Madison Counties have nominated the bridges for replacement not rehabilitation, this alternative would be inconsistent with the intentions of owners of the structures. Neither bridge is included on the list of historic structures slated for rehabilitation identified in MDT's Roads and Bridges Historic Preservation Plan.

For the reasons disclosed above, rehabilitating the existing bridges is not a feasible and prudent alternative and does not meet the purpose and need for the projects.

4. Rebuild the Bridges on Essentially the Same Alignment

Reconstructing the bridges on or near their existing locations (Alternative "A-1" in the Environmental Assessment) would not be a way to avoid impacts on either 24MA413 or the Glen FAS. The existing historic bridge would have to be removed and reconstruction of the

approach to the new west bridge would require right-of-way from the FAS to accommodate road widening.

The proposed alignment of Alternative A-1 would require the acquisition of a residence and the relocation of full-time residents from a property on the island between main and overflow channels of the Big Hole River. The proposed alignment of the alternative would also pass directly through the western portion of the FAS where a boat ramp exists. The proposed alignment of this alternative would also disturb an Indian burial site located within the FAS property.

Additionally, building new structures on virtually the same alignment would require closing Burma Road for extended periods or providing a detour and alternate river crossing. Both measures would disrupt local and recreational traffic during the construction period. Use of detours and alternate crossings would add to the cost of the project and could cause temporary adverse impacts to nearby residences, the Glen FAS, or adjacent agricultural lands depending on the site of the detour and alternate river crossing.

Based on these considerations, rebuilding the bridges on or near the existing alignment is not a reasonable and prudent alternative and does not meet the purpose and need for the projects.

5. Alignment Shifts to Avoid *Section 4(f)* Properties

Alignment shifts were investigated to determine if 24MA413 and the Glen FAS could be avoided. However, such alignment shifts (evaluated as Alternatives "B" and "C" in Part III of the Environmental Assessment) were generally found to be unacceptable due to the resulting adverse impacts on wetlands, effects on local agricultural operations, and the extensive amount of new approach road required for the alignments. Alignment shifts considered for this proposed action are described below.

- **Alternative "B".** The avoidance alternative would realign the existing roadway and construct a single bridge at a location about 300 m (1,000 feet) downstream from the existing west bridge. A new bridge spanning the entire river channel would be required at this location. The existing west bridge would be removed and the historic east bridge would remain in place to allow for local access to the island between the main and overflow channels of the river.

  The alternative was eliminated from consideration because the construction of new roadway associated with this alternative would permanently affect lands in the Glen FAS and would encroach on existing farmlands to the south of the FAS. Preliminary investigations also suggest that the broad river channel may be laterally unstable in the vicinity of the crossing for this proposed alignment. Investigations showed that new road and bridge construction associated with this alternative may impact between 1 and 2 ha (2 and 5 acres) of wetlands.

- **Alternative "C".** This alternative, as described in Part III of the Environmental Assessment, would provide a single bridge downstream from the Glen FAS. This

avoidance alignment would require that one of the two existing bridges remain in place for access to residences located on the island between the main stem and overflow channel of the Big Hole River. Unless local residents were willing to accept the responsibility for maintaining either of the old bridges, local government would be faced with the burden of maintaining both an obsolete and structurally deficient existing bridge as well as a new river crossing.

Although Alternative "C" avoids the Glen FAS and would not affect 24MA413, it was eliminated from consideration because of the large amount of new right-of-way that must be acquired, the extensive amount of new road construction, and substantial impacts on adjacent agricultural lands and wetlands. Studies show that construction of Alternative C would potentially impact between 4 and 5 ha (9 and 12 acres) of wetlands. This wetland impact would be substantially greater than other alternatives considered for the bridge replacement projects.

Based on the analysis done in Part III of the Environmental Assessment, alignment shifts to avoid *Section 4(f)* properties are not feasible and prudent and does not meet the purpose and need for the projects.

E. Measures to Minimize Harm

This section discusses measures to mitigate impacts to the Big Hole River Overflow Bridge (24MA413) and the Glen FAS caused by the Preferred Alternative.

1. Mitigation for Impacts to the Big Hole River Overflow Bridge (24MA413)

A Memorandum of Agreement (MOA) outlining the proposed mitigation measures has been prepared by MDT and was accepted by the FHWA, the ACHP, and SHPO in December, 1997. The measures discussed below are included in the MOA as mitigation for impacts on 24MA413. A copy of the MOA is included in APPENDIX D.

- **Remove and Reuse the Existing Bridge.** MDT offered the Big Hole River Overflow Bridge for adoption under the terms of its Adopt-A-Bridge Program. A copy of MDT's Adopt-A-Bridge Program is included in APPENDIX D. In an attempt to find a new owner for the structure, MDT offered the bridge for adoption through newspaper and radio advertisements in southwestern Montana.

  As a result of MDT's efforts, the Rotary Club of Dillon, Montana has agreed to adopt the 24MA413. The structure will be moved to a site crossing the Beaverhead River at Dillon where it will be utilized as a component of a bicycle/pedestrian path. MDT will notify the FHWA, the ACHP, and SHPO of the adoption and provide documentation that the transfer of ownership has occurred.

- **Conduct HAER-Level Recordation of the Existing Bridge.** MDT will document the Big Hole River Overflow Bridge to Historic American Engineering Record (HAER) recordation standards prior to its removal from the existing site. The report will be

provided to SHPO, the Montana Historical Society, and county historical societies.

- **Prepare Report on Adoption/Relocation Process for the Bridge.** MDT will prepare a report discussing the adoption and relocation process for the historic bridge and its subsequent use as a bicycle/pedestrian crossing at Dillon. The report will be provided to FHWA, the ACHP, SHPO, and interested members of the public considering the adoption of an historic highway bridge under future MDT bridge replacement projects.

2. Mitigation for Impacts to the Glen FAS

The following measures will be implemented as mitigation for impacts to the Glen FAS:

- **Provide Replacement Land.** As mitigation for using *Section 4(f)* and *Section 6(f)* land from the Glen FAS, MDT must provide replacement land of reasonably equivalent usefulness and location and of at least comparable value. As indicated in Part IV of the Environmental Assessment, MDT is now in the process of acquiring a large parcel of replacement land adjacent to Lewis and Clark Caverns in Jefferson County for a new fishing access or recreation site. This purchase would be used to mitigate the impacts of this proposed project and MDT's Big Hole River-West of Melrose, Silver Star North & South, Four Corners-West, and Southeast of Ennis highway projects. This proposed mitigation has been discussed with the MDFWP and is acceptable to the agency.

- **Replace Facilities at the FAS.** Facilities at the Glen FAS impacted by the proposed action will be replaced. Construction of the approach to the new west bridge will impact the existing fence between the road and the fishing access site, the approach to the FAS, and signing for the recreation site. The approach to the FAS will be regraded and resurfaced as part of this proposed project. Perimeter fencing or signing impacted by construction will be replaced.

- **Limit Construction Activities at the FAS.** Other than the construction of the roadway, all construction-related activities will be excluded from the Glen FAS. MDT and MDFWP will designate an area within the FAS where staging or parking for supplies or equipment will be prohibited. This area will be identified in a Special Provision to the contract.

- **Restore Disturbed Areas.** MDT will reestablish a permanent desirable vegetation community along all areas disturbed by the proposed construction. This action will be in accordance with **7-22-2152** and **60-2-208, M.C.A.** A set of revegetation guidelines will be developed by MDT that must be followed by the contractor. These specifications will include instructions on seeding methods, dates, mix components, and the types and amounts of mulch and fertilizer. Seed mixes include a variety of species to assure that areas disturbed by construction are immediately stabilized by vegetative cover. The Seeding Special Provisions developed for this proposed project will be forwarded to the Beaverhead County and Madison County Weed Boards for review and approval.

  An Erosion Control Plan will also be developed and implemented to minimize erosion of

disturbed areas during and following construction of this proposed project.

F. Coordination

An informational meeting was held about these bridge replacement projects on March 1, 1995 at the Reichle School in Glen. On August 1, 1995, MDT issued a News Release for this project. The news release discussed bridge replacement options under consideration for the projects, contained a general description of the scope of work, identified the potential need for new right-of-way associated with each alignment, and noted possible impacts on the Glen FAS. Comments and information relevant to this project were requested.

The meeting included a brief presentation describing the proposed bridge replacement projects near Glen and an opportunity for the public to discuss the project with MDT staff. The meeting was focused on an alignment different from MDT's Preferred Alternative for the proposed bridge replacements. The meeting discussed the development of this proposed action on alignment options requiring only a single new bridge.

Additional requests for updated environmental information were completed in 1995 during the development of the environmental document for this proposed action These requests provided agencies with a general description of the scope of work for the proposed project and in some cases, solicited information that could be used in the development of the environmental document.

MDT's cultural resource inventories were sent to SHPO for review and comment. SHPO agreed with the findings of the documents and the determination that the existing Big Hole River Overflow Bridge is National Register-eligible in December, 1996. A MOA outlining mitigating measures to be implemented for adverse impacts on 24MA413 was prepared by MDT and accepted by the FHWA, the SHPO, and the ACHP in December, 1997.

Contacts were made with the MDFWP on several occasions during the development of this document to discuss issues related to this *Section 4(f)* Evaluation and potential involvement with funds from *Section 6(f)* of the *National Land and Water Conservation Fund Act*. Meetings with MDFWP regarding this project and possible mitigating measures occurred on September 13, 1996 and on January 9, 1997. MDFWP representatives contacted during the development of this project included:

Mary Ellen McDonald, LWCF Coordinator, Parks Division
Deb Dils, Lands Section
Tom Reilly, Fisheries Division
Ken Soderberg, Parks Division

The U.S. Department of the Interior, Office of the Secretary, was contacted for comments during the preparation of the EA/Draft *Section 4(f)* Evaluation. On May 14, 1999, the Office of the Secretary concurred with the proposed measures to minimize harm to the *Section 4(f)* resources affected by the proposed project and that there are no feasible and prudent alternatives to the use of such properties. A copy of the Department of the Interior's letter is provided in APPENDIX D.

VI. Coordination with Others

VI. COORDINATION with OTHERS

A. Agency Coordination

The following agencies and parties were contacted during the development of this Environmental Assessment and Draft *Section 4(f)* Evaluation:

- Montana Department of Fish, Wildlife & Parks (Fisheries and Parks Division)
- Montana State Historic Preservation Office
- Montana Department of Natural Resources and Conservation (Water Resources Division)
- Natural Heritage Program, Montana State Library
- U.S. Fish and Wildlife Service
- Federal Highway Administration (Montana Division Office)
- U.S.D.A. Natural Resources Conservation Service (Area Conservationist)
- Beaverhead County
- Madison County

B. Public Involvement

A News Release for this project was issued on August 1, 1995. The news release discussed three bridge replacement options under consideration at the time for the projects near Glen. The news release also contained a general description of the scope of work, identified the potential need for new right-of-way associated with each alignment, and noted possible impacts on the Glen FAS.

An informational meeting was held about these bridge replacement projects on March 1, 1995 at the Reichle School in Glen. The meeting included a brief presentation describing the proposed bridge replacement projects near Glen and an opportunity for the public to discuss the project with MDT staff. The meeting was focused on an alignment different than MDT's Preferred Alternative for the proposed bridge replacements. The 1995 meeting was held to discuss an alignment requiring only one river crossing, MDT's design direction at the beginning of this proposed project.

Letters notifying various public agencies of the intent to replace the Big Hole River Bridges southeast of Glen were distributed during December, 1996. These letters provided agencies with a general description of the scope of work for the proposed project and in some cases, solicited information that could be used in the development of the environmental document. Agency correspondence resulting from this initial notification is included in APPENDIX B.

An Opportunity for a Public Hearing will be offered following FHWA's approval of this Environmental Assessment/*Section 4(f)* Evaluation. Written comments will be received on this document for at least thirty (30) days following its distribution. Unless comments received on this document warrant further investigation, no additional public involvement is planned. Public and agency comments on this document will be evaluated to determine whether significant impacts will occur from any of the proposed alternatives; if further consideration of the impacts discussed herein is needed; and if new issues have arisen that need to be addressed in the Environmental Assessment/*Section 4(f)* Evaluation. Appropriate revisions will be made to the text of the

Environmental Assessment/*Section 4(f)* Evaluation.

If no significant impacts are identified, MDT will submit the revised Environmental Assessment/*Section 4(f)* Evaluation to FHWA and request that the agency make a Finding of No Significant Impact (FONSI). The FONSI will then be attached to this document. Notice of availability of the FONSI and revised Environmental Assessment/Final *Section 4(f)* Evaluation will be made to Federal, State, and local government agencies with interests in the project.

If significant impacts are found, MDT and officials from Beaverhead and Madison Counties must decide to proceed with this project by preparing an Environmental Impact Statement.

C. Distribution List for Document

The following agencies, groups, and individuals are being sent a copy of this Environmental Assessment:

AGENCIES AND OTHERS WITH INTERESTS IN PROJECT

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration
2880 Skyway Drive
Helena, MT 59602

U.S. Department of the Interior
Office of the Secretary
Washington, D.C. 20240

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
P.O. Box 200901
Helena, Montana 59620-0901
Attn: Administrator
Permitting and Compliance Division

MONTANA DEPARTMENT OF FISH, WILDLIFE & PARKS
Parks Division
1420 East Sixth Avenue
P.O. Box 200701
Helena, MT 59620-0701

STATE LIBRARY
Collection Management Librarian
1515 East Sixth Avenue
Helena, MT 59620-1800

ENVIRONMENTAL QUALITY COUNCIL
Office of the Director
Capitol Post Office Box 215
Helena, MT 59620

BEAVERHEAD COUNTY COMMISSIONERS
Beaverhead County Courthouse
2 South Pacific Street
Dillon, MT 59725-2799

BEAVERHEAD COUNTY LAND USE AND PLANNING
Beaverhead County Courthouse
2 South Pacific Street
Dillon, MT 59725

BEAVERHEAD COUNTY ROAD DEPARTMENT
Beaverhead County Courthouse
2 South Pacific Street
Dillon, MT 59725

MADISON COUNTY COMMISSIONERS
Madison County Courthouse
Virginia City, MT 59755

MADISON COUNTY PLANNING BOARD
P.O. Box 278
Virginia City, MT 59755

MADISON COUNTY ROAD DEPARTMENT
Madison County Courthouse
Virginia City, MT 59755

D. List of Agencies With Jurisdiction and/or Permits Required

The following agencies have permit requirements applicable to this proposed action:

- U.S. Department of the Army, Corps of Engineers (Regulatory Office) -- *Section 404* Permit for the Big Hole River and Big Hole River overflow channel crossings

- Montana Department of Fish, Wildlife & Parks - ***124SPA*** Permit as required under the *Montana Stream Protection Act*

- Montana Department of Environmental Quality, Permitting and Compliance Division - *Section 402*/Montana Pollutant Discharge Elimination System Permit
  and
  Section 401 water quality certification (if needed to support a *Section 404* permit)

E. List of Other Agencies, Persons, or Groups Contacted or Have Contributed Information

The agencies and individuals below were contacted for information useful to the preparation of this Environmental Assessment. Pertinent correspondence from some of these individuals has been included in APPENDIX B.

- David Farrand, Soil Conservationist, U.S.D.A. Natural Resource Conservation Service (Whitehall)

- Karl Christians, Floodplain Management Section Supervisor, Operations Bureau, Montana Department of Natural Resources and Conservation

- Kurt Gelderman, Special Uses Development Specialist, Southwestern Land Office, Montana Department of Natural Resources and Conservation

- Mary Ellen McDonald, Program Officer, Montana Department of Fish, Wildlife & Parks, Parks Division, Resource & Recreation Bureau (retired)

- Ken Soderberg, Resource Program Manager, Montana Department of Fish, Wildlife & Parks, Parks Division

Appendices

Appendix A: List of Preparers

The following parties are responsible for the preparation and content of this document:

Joel M. Marshik, P.E.
Environmental Services Manager
Montana Department of Transportation
P.O. Box 201001
Helena, MT 59620-1001

Janice W. Brown, Division Administrator
Montana Division Office
Federal Highway Administration
2880 Skyway Drive
Helena, MT 59602

The following consultants assisted the Montana Department of Transportation coordinate, develop supporting information, and write this document:

Robert Peccia & Associates, Inc.
Consulting Civil Engineers, Planners and Designers
825 Custer Avenue
P.O. Box 5653
Helena, Montana 59604

OEA Research, Inc.
Ecological Services Consultants
P.O. Box 1209
Helena, Montana 59624

GCM Services, Inc.
Cultural Resource Consultants
P.O. Box 3047
Butte, Montana 59702

Appendix B: Correspondence Pertinent to Project

DEPARTMENT OF NATURAL
RESOURCES AND CONSERVATION

MARC RACICOT
GOVERNOR

DIRECTOR'S OFFICE (406) 444-2074
TELEFAX NUMBER (406) 444-2684

STATE OF MONTANA

WATER RESOURCES DIVISION (406) 444-6601
TELEFAX NUMBER (406) 444-0533

PO BOX 201601
HELENA, MONTANA 59620-1601

April 23, 1995

Mr. Daniel Norderud
Project Manager
Robert Peccia & Associates
P.O. Box 5653
Helena, MT 59604

RE: Big Hole River - West of Melrose
Big Hole River - SE of Glen

Dear Mr. Norderud:

I apologize for taking so lone to respond to your request. With the presidential declaration due to flooding, I have been virtually out of the office for two months.

In follow-up to the above mentioned sites of interest, I have included a copy of a floodplain map generated by the Soil Conservation Service for the Big Hole River near Melrose. The Flood Study was completed in 1986. I have also enclosed a copy of the FEMA Flood Insurance Rate Map (FIRM) panel 420 D, for this area. The 100-year floodplain for the Big hole River has not been delineated in the area of Glen. therefore, there are no maps available of the floodplain.

As such, the Butte Silver-Bow County Floodplain Administrator will require construction and project information on the proposed project if the bridge is to be improved or replaced. The main concern would be the project be developed to have a minimal impact to the 100-year flood. It can not cause an increase in the 100-year flood elevation of more than one half foot (0.5ft). It should also be designed and constructed to withstand 100-year flood forces and itself be minimally impacted in the event of a flood.

If you have any questions, please call me at 444-6654.

Sincerely,

Karl

Karl Christians
Floodplain Management Section Supervisor
Water Operations Bureau

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

MARC RACICOT, GOVERNOR

STATE OF MONTANA

Telephone: (406) 542-4200
FAX: (406) 542-4285

SOUTHWESTERN LAND OFFICE
1401 27th Avenue
Missoula, MT 59801-4733

RECEIVED

SEP 27 1996

ROBERT PECCIA
& ASSOCIATES

September 26, 1996

Daniel M. Norderud
Robert Peccia & Associates
PO Box 5653, 825 Custer
Helena, MT 59604

Dear Mr. Norderud:

In reference to your letter (attached) I want to thank you for your inquiry.

The State of Montana claims navigablilty between Wisdom and Divide. since your projects are situated down stream from Divide the DNRC would not be involved in the permitting of any crossings.

Again, thank you for your inquiry.

Sincerely,

Kurt Gelderman
Special Uses Development Specialist

Appendix C: Structure Inventory and Appraisal Reports for Existing Bridges

S.I.& A. SUPPLEMENTAL FORM

STRUCTURE NO. L01210000+0.700-1 FEATURE CROSSED Big Hole River

INSPECTED BY L Johnson & P Alenzon DATE INSPECTED 4/27/95

CONDITION RATINGS

58. [6] DECK
- A 4 CURBS
- B 6 FLOORING/SLAB
- C N GUARD ANGLES
- D N JOINTS
- E N MEDIAN
- F 7 RAIL/BARRIER
- G 4 SIDEWALKS
- H 6 WEARING SURFACE
- I N OTHER

59. [4] SUPERSTRUCTURE
- A 4 BEARING DEVICES
- B 7 BRACING
- C N DRAINAGE
- D 5 FLOORBEAMS
- E N GIRDERS
- F 4 PAINT
- G 6 STRINGERS
- H 4 TRUSSES
- I 7 UTILITIES
- J N OTHER

60. [5] SUBSTRUCTURE
- A 5 ABUTMENTS
- B N BENTS/PIERS
- C N BRACING
- D 6 CAPS
- E N COLUMNS
- F 7 ENDFILLS
- G N FOOTINGS/SILLS
- H N ICE BREAKERS
- I N PILES/POSTS
- J N RETAINING WALLS
- K N OTHER

61. [7] CHANNEL AND CHANNEL PROTECTION
- A 7 CHANNEL LINING
- B 7 DRIFT
- C N LEVEES
- D 7 RIP RAP/GABIONS
- E N SCOUR/PIPING
- F 7 SPUR DIKE
- G 7 STREAM BANK
- H 5 VEGETATION
- I N OTHER

62. [N] CULVERT
- A ___ TRANSITION
- B ___ EMBANKMENT
- C ___ FOOTINGS
- D ___ RAIL/BARRIER
- E ___ INVERT
- F ___ JOINTS/BOLTS
- G ___ RETAINING WALLS
- H ___ SHAPE
- I ___ OTHER

65. [7] APPROACH ROADWAY CONDITION
- A N APPROACH SLAB
- B 7 EMBANKMENT
- C N GUARDRAIL
- D N JOINTS
- E 7 SHOULDERS
- F 7 SURFACE
- G 7 TRANSITION
- H N OTHER

APPRAISAL RATINGS

71. [8] WATERWAY ADEQUACY
- A 7 ALIGNMENT
- B 7 CAPACITY
- C 8 FREEBOARD
- D 7 PROFILE
- E N OTHER

72. [6] APPROACH ROADWAY ALIGNMENT
- A N HORIZONTAL CURVE
- B 8 LATERAL CLEARANCE
- C 8 LOAD POSTED
- D 8 SIGNS/MARKERS
- E N VERTICAL CURVE
- F 6 VISIBILITY
- G N OTHER

REMARKS: (58)(B,H) [illegible] timbers that are cracked, split & badly worn. (E) [illegible] minor [illegible] (59)(A) Bearing devices badly rusted with scale & [illegible] (B) [illegible] rusted with pieces missing. (D) Floorbeams rusted with scale. (F) All [illegible] (G) Stringers are cracked, split with rot at abutments (H) [illegible] are lying on top of floorbeams. (60)(A) Concrete abutment [illegible] cracking & spalling [illegible] reinforcing steel exposed at [illegible] (D) Caps are cracked & spalled [illegible] are sloughing. (61)(B) Minor drift around abutments (D) [illegible] (65)(B)(G) are sloughing. (F) Gravel approach roadway rutted. (71)(A)(D) [illegible] structure. (72)(C) Visible & [illegible] posting (D) Markers good (F) Visibility is [illegible] by approaches & vegetations both ends of structure

PRIORITY	MAINTENANCE ACTIVITY NUMBERS	MAINTENANCE RECOMMENDATIONS FEDERAL-AID - STATE MAINTAINED ONLY	MAINTENANCE FORCES REPAIRS COMPLETED BY	DATE

STRUCTURAL INVENTORY AND APPRAISAL

```
*************** IDENTIFICATION *********** CODE *
(008) STRUCTURE NUMBER:          L01210000+0.700-1
(002) HIGHWAY DIVISION:   BUTTE                  21
(003) COUNTY:            BEAVERHEAD               1
(004) CITY:                                       0
(006) FEATURE XED.:    BIG HOLE RIVER           073
(007) FACILITY CARRIED:          COUNTY ROAD 210
(009) LOCATION:          1M SE GLEN
(016) LAT: 45 0 28.1' (017) LONG:  112   0 40.2'

*************** CLASSIFICATION *********** CODE *
( SR) SUFFICIENCY RATING:                    23.1 %
(112) NBIS BRIDGE LENGTH:                         Y
(100) DEFENSE HIGHWAY:                            0
(021) MAINTAINED BY:   COUNTY HIGHWAY AGY         2
(022) OWNED BY:        COUNTY HIGHWAY AGY         2
(037) HISTORICAL SIGNIF:     IS ELIGIBLE          2
( PN) PROJECT NO:                   (STA:) 000000
( DN) DRAWING NO:                          000000

*************** AGE AND SERVICE ********* CODE *
(027) YEAR BUILT: 1892  (106) YEAR RECONS: 0000
(042) TYPE SERVICE: HIGHWAY        WATERWAY    15
(028) LANES ON:  1 UNDER:  0  (029) ADT:       31
(030) YEAR ADT: 93        (109) TRUCK ADT:     0%
(019) BYPASS DETOUR LENGTH:                 40 MI

******* STRUCTURE TYPE & MATERIAL ****** CODE *
(043) STRUCTURE TYPE-MAIN:                    310
(044) STRUCTURE TYPE-APPR:                    000
(045) NO. SPANS-MAIN:                           1
(046) NO. SPANS-APPR:                           0
(107) DECK STRUCTURE TYPE: TIMBER               B
(108) WEAR SURF/PROTECTIVE SYS:
   A) TYPE SURF: TIMBER          7   DEPTH:   0IN
   B) TYPE MEMBRANE:          NONE              0
   C) TYPE DECK PROTECTION:   NONE              0

*************** GEOMETRIC DATA ********** CODE *
(048) LENGTH OF MAXIMUM SPAN:                128FT
(049) STRUCTURE LENGTH:                      129FT
(050) CURB/SIDEWLK: LEFT:   0.0 FT RIGHT:    0.0FT
(051) BR RDWY WIDTH(CURB TO CURB):          13.7FT
(047) TOTAL HORIZ. CLEAR. (CURB/RAIL:)      13.7FT
(052) DECK WIDTH (OUT TO OUT):              14.0FT
(032) APPROACH ROADWAY WIDTH:                 18FT
(033) BRIDGE MEDIAN:  NO MEDIAN                  0
(034) SKEW:           0 D   (035) FLARED:        0
(053) MIN VERT CLEAR OVER BR. RDWY:    14FT    9IN
(054) MIN VERT UNDERCLEAR REF:     N    0FT    0IN
(055) MIN LAT. UNDERCLEAR RT REF:  N         0.0FT
(056) MIN LAT. UNDERCLEAR LT:                0.0FT
```

```
************* LOAD RATING & POSTING ********* CODE *
(031) DESIGN LOAD:           UNKNOWN                  0
(064) OPERATING RATING:                             210
(066) INVENTORY RATING:                             204
(LOAD) TYPE 3:  6 T   TYPE 3S2:   7 T   TYPE 3-3:   8 T
(POST) TYPE 3:  6 T   TYPE 3S2:   7 T   TYPE 3-3:   8 T
OTHER ____________________________________________

******** CONDITION ********* CODE **** CHANGE ? ***
(058) DECK:                          5        6
(059) SUPERSTRUCTURE:                4        4
(060) SUBSTRUCTURE:                  5        5
(061) CHANNEL/CHAN PROTECT:          7        7
(062) CULVERT:                       N        N
(065) APPR. RDWY CONDITON:           6        7

******** APPRAISAL ********* CODE **** CHANGE ? ***
(067) STRUCTURAL EVALUATION:         2   __________
(068) DECK GEOMETRY:                 5   __________
(069) UNDERCLEAR VERT/HORZ:          N   __________
(071) WATERWAY ADEQUACY:             6        8
(072) APPR. RDWY ALIGNMENT:          6        6
(113) SCOUR CRITICAL BRIDGES:        6   __________
(036) TRAFFIC SAFETY FEATURES: 0000
BR RAIL__TRANS__APPR GD__GD TERM__

******** INSPECTION *********** INTERVAL **** DATE *
(090) LAST INSPECTION DATE:        24 MO.       03/93

(092,093) CRITICAL FEATURE INSPECT INTERVAL & DATE

      CFI DETAIL        CFI   CAT  INTERVAL    CFI DATE
  A) FRACTURE CRITICAL:  Y          48 MO.      00/00
  B) UNDERWATER INSP.:   Y   ___    48 MO.      00/00
  C) PIN CONNECTED:      N           0 MO.      00/00
  D) SNOOPER:            N    .      0 MO.      00/00

**************** FIELD INSPECTION ****************

INSPECTED BY:______________________________________

DATE INSPECTED:______4-95__________________________

***************** OFFICE REVIEW ******************
          - BRIDGE EVALUATION UNIT -

ENGINEERING REVIEW NECESSARY?   ______YES  __✓__NO

REVIEWED BY:______________________  DATE__________
```

TRUSS CONDITION FORM

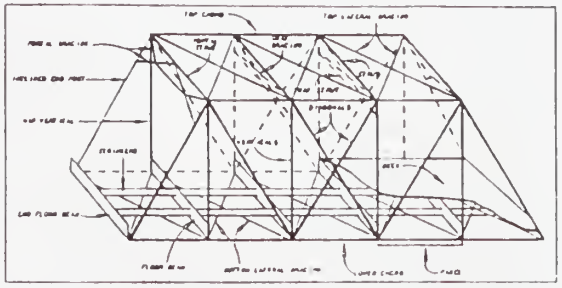
STRUCTURE NO. L01210000+0.700-1 FEATURE CROSSED BIG HOLE RIVER

INSPECTED BY R. JOHNSON, P. ALEXANDER DATE INSPECTED 4/17/95

TRUSS COMPONENTS*

A. END POSTS	H. SWAY BRACING
B. PORTAL STRUT	I. LOWER CHORD
C. PORTAL BRACING	J. BOTTOM LATERAL BRACING
D. TOP CHORD	K. VERTICALS
E. TOP LATERAL BRACING	L. DIAGONALS
F. TOP LATERAL STRUTS	M. PANEL CONNECTIONS
G. SWAY STRUTS	N. OTHER

* Identify components alphabetically.



(A) END POST ARE BADLY RUSTED, SCALED, & COVERED WITH DEBRIS BLOCKING & UNABLE TO INSPECT PROPERLY. S.E. INCLINED END POST HAS 6" TEAR (SEE PHOTO) (B)(C) ARE BADLY RUSTED WITH SCALE. (D) TOP CHORD SEEMS TO BE IN ALIGNMENT BUT IS BADLY RUSTED WITH SCALE (G) TOP LATERAL BRACING IS BENT & BOWED WITH RUST & SCALE. (F) TOP LATERAL STRUTS RUSTED WITH SCALE (I) LOWER CHORD IS BENT, & TWISTED WITH RUST & SCALE. (J) BOTTOM LATERAL ~~SCALE~~ BRACING IS BENT & TWISTED WITH SOME MISSING BRACING. (K) HIP VERTICALS ARE BENT WITH RODS TOUCHING AT TOP CONNECTION. ALL OTHERS VERTICALS RUSTED WITH SCALE. (L) DIAGONALS ARE RUSTED WITH SCALE (M) PANEL CONNECTIONS ARE BADLY RUSTED WITH SCALE. (N) FLOOR BEAMS BADLY RUSTED WITH SCALE.

L01210000+0.700-1
Big Hole River
4-17-95

Looking NE

Bottom Chord Badly Bent And Rusted

Looking SE

S.I.& A. SUPPLEMENTAL FORM

STRUCTURE NO. L2714101SLC 700-1 FEATURE CROSSED Big Hole River

INSPECTED BY E Jamison & P Mervigan DATE INSPECTED 4/20/95

CONDITION RATINGS

58. [6] DECK
- A 6 CURBS
- B 6 FLOORING/SLAB
- C N GUARD ANGLES
- D N JOINTS
- E N MEDIAN
- F 5 RAIL/BARRIER
- G 6 SIDEWALKS
- H. 6 BEARING SURFACE
- I. N OTHER

59. [5] SUPERSTRUCTURE
- A 5 BEARING DEVICES
- B. 5 BRACING
- C 5 DRAINAGE
- D 5 FLOORBEAMS
- E N GIRDERS
- F 5 PAINT
- G 7 STRINGERS
- H. 5 TRUSSES
- I 6 UTILITIES
- J N OTHER

60. [5] SUBSTRUCTURE
- A 5 ABUTMENTS
- B 6 BENTS/PIERS
- C N BRACING
- D 5 CAPS
- E N COLUMNS
- F 7 ENDPILES
- G 6 FOOTINGS/PILES
- H. N ICE BREAKERS
- I N PILES/POSTS
- J N RETAINING WALLS
- K N OTHER

61. [7] CHANNEL AND CHANNEL PROTECTION
- A 5 CHANNEL LINING
- B 7 DRIFT
- C N LEVEES
- D 7 RIP RAP/REVETMENTS
- E 5 SCOUR/EROSION
- F 5 SPUR DIKE
- G 5 STREAM BANK
- H. N VEGETATION
- I N OTHER

62. [N] CULVERT
- A ___ DEPOSITION
- B ___ ENCROACHMENT
- C ___ FOOTINGS
- D ___ RAIL/BARRIER
- E ___ INVERT
- F. ___ JOINTS, BOLTS
- G ___ RETAINING WALLS
- H. ___ SHAPE
- I. ___ OTHER

65. [7] APPROACH ROADWAY CONDITION
- A N APPROACH SLAB
- B. N EMBANKMENT
- C N GUARDRAIL
- D N JOINTS
- E 7 SHOULDERS
- F 7 SURFACE
- G N SUBSTRUCTURE
- H. N OTHER

APPRAISAL RATINGS

71. [8] WATERWAY ADEQUACY
- A 7 ALIGNMENT
- B 8 CAPACITY
- C 8 FREEBOARD
- D 7 FLOW TYPE
- E N OTHER

72. [7] APPROACH ROADWAY ALIGNMENT
- A 7 HORIZONTAL CURVE
- B 8 LATERAL CLEARANCE
- C 8 LOAD POSTED
- D N SIGNS/MARKERS
- E 6 VERTICAL CURVE
- F 7 VISIBILITY
- G. N OTHER

REMARKS: (59)(B) UNTREATED WOOD FLOORING BEAMS SPLIT WITH SOME REPT. (C) METAL BRG. HAS MECHANICAL DAMAGE, RUST & LOOSE SECTIONS. (H) UNTREATED WOOD RUBBING BOARDS ARE CRACKED SPLIT & BADLY WORN (59)(A) BEARING DEVICES BADLY RUSTED & COVERED WITH DEBRIS UNABLE TO MOVE PROPERLY (B) BEARING IS BENT & BADLY RUSTED. (D) 1ST 3 FLOORBEAMS FROM 6 S.O.G. ABUTMENT ARE SLIGHTLY RUSTED & BADLY RUSTED (F) ALL STRUCTURAL STEEL NEEDS CLEANING & PAINT (G) UNTREATED STRINGER FACE CRACKED & SPLIT (H) SEE TRUSS CONDITION FORM (I) UTILITIES CONDUITS TO S. SIDE OF STRUCTURE. (60)(A) CRACKING ABUTMENTS HAVE CONCRETE & SPALLING EXP. ARE & REINFORCING STEEL (D) CAPS HAVE CRACKING & SPALLING IN EXPOSE AGG. (F) ENDPILES ARE SPLASHING. (61)(B) DRIFT AROUND ABUTMENTS (D) RIPRAP NEEDED UPSTREAM S.O. OF STRUCTURE (65)(G) ALL SPLASHING. (F) GRAVEL APP. ROADWAY IS RUTTED. (71)(A) (D) CHANNEL CONSTRICTS & FLOWS INTO & OUT OF STRUCTURE. (72)(D) VARIABLE 5 TO 9 TON LOAD LIMIT SIGNS NEAR BRIDGES (E) VISIBILITY HINDERED BY APPROACH & VEGETATION BOTH SIDE OF STRUCTURE

MAINTENANCE RECOMMENDATIONS

FEDERAL-AID - STATE MAINTAINED ONLY

PRIORITY	MAINTENANCE REPAIR NUMBERS	MAINTENANCE RECOMMENDATIONS	MAINTENANCE FORCES REPAIRS COMPLETED (M)	DATE

STRUCTURAL INVENTORY AND APPRAISAL

```
********** IDENTIFICATION ********** CODE *
(008) STRUCTURE NUMBER:          L2914101S+0.700-1
(002) HIGHWAY DIVISION: BUTTE          21
(003) COUNTY:           MADISON        57
(004) CITY:                            0
(006) FEATURE XED:  BIG HOLE RIVER OVER   062
(007) FACILITY CARRIED: COUNTY ROAD 141
(009) LOCATION: 45 D 28.2' (017) LONG: 112  D 39.8'
                                  SE GLEN

********** CLASSIFICATION ********** CODE *
( SR) SUFFICIENCY RATING:                18.4
(112) NBIS BRIDGE LENGTH:                  Y
(100) DEFENSE HIGHWAY:                     0
(021) MAINTAINED BY:  COUNTY HIGHWAY AGY   2
(022) OWNED BY:       COUNTY HIGHWAY AGY   2
(037) HISTORICAL SIGNIF:  IS ELIGIBLE (STA:)  000000
( PN) PROJECT NO:                      000000
  DN) DRAWING NO:

********** AGE AND SERVICE ********** CODE *
(027) YEAR BUILT: 1910 (106) YEAR RECONS: 0000
(042) TYPE SERVICE: HIGHWAY - WATERWAY    15
(028) LANES ON: 1 UNDER: 0 (029) ADT:     111
(030) YEAR ADT: 93  (109) TRUCK ADT:      02
(019) BYPASS DETOUR LENGTH:   40 MI

********** STRUCTURE TYPE & MATERIAL ********** CODE *
(043) STRUCTURE TYPE-MAIN:               310
(044) STRUCTURE TYPE-APPR:               000
(045) NO. SPANS-MAIN:                      1
(046) NO. SPANS-APPR:                      0
(107) DECK STRUCTURE TYPE:  TIMBER         1
(108) WEAR SURF: PROTECTIVE SYS:           B
      A) TYPE MEMBRANE:  NONE  7  DEPTH:  DIN
      B) TYPE DECK PROTECTION:  NONE       0

********** GEOMETRIC DATA ********** CODE *
(048) LENGTH OF MAXIMUM SPAN:          90FT
(049) STRUCTURE LENGTH:                93FT
(050) CURB/SIDEWALK: LEFT: 0.0 FT RIGHT: 0.0FT
(051) BR. ROWY WIDTH (CURB TO CURB):   15.3FT
(047) TOTAL HORIZ. CLEAR. (CURB/RAIL:) 15.3FT
      DECK WIDTH (OUT TO OUT):         15.6FT
(032) APPROACH ROADWAY WIDTH:          18FT
(033) BRIDGE MEDIAN: NO MEDIAN           0
(034) SKEW: 0  0 (035) FLARED:           0
(052) MIN VERT CLEAR OVER BR. RDWY: 10FT 10IN
(053) MIN VERT UNDERCLEAR REF:   N   0FT  0IN
(054) MIN LAT. UNDERCLEAR RT. REF: N   0.0FT
(055) MIN LAT. UNDERCLEAR LT:      0.0FT

********** LOAD RATING & POSTING ********** CODE *
(031) DESIGN LOAD:                       UNKNOWN
(064) OPERATING RATING:                      0
(066) INVENTORY RATING:                    208
(LOAD) TYPE 3:  3 T  TYPE 3S2:  4 T  TYPE 3-3:  202
(POST) TYPE 3:  5 T  TYPE 3S2:  9 T  TYPE 3-3:  4 T
OTHER                                          P T

********** CONDITION ********** CODE **** CHANGE ? ***
(058) DECK:                                  6
(059) SUPERSTRUCTURE:                        5
(060) SUBSTRUCTURE:                          5
(061) CHANNEL/CHAN. PROTECT:                 7
(062) CULVERT:                               N
(065) APPR. ROWY CONDITION:                  6

********** APPRAISAL EVALUATION ********** CODE **** CHANGE ? ***
(067) STRUCTURAL EVALUATION:                 2      N
(068) DECK GEOMETRY:                         2
(069) UNDERCLEAR VERT/HORIZ:                 N
(071) WATERWAY ADEQUACY:                     6
(072) APPR. ROWY ALIGNMENT:                  7
(113) SCOUR CRITICAL BRIDGES:                6
(036) TRAFFIC SAFETY FEATURES:               0000
BR RAIL  TRANS  APPR GD  GD TERM

********** INSPECTION ********** INTERVAL **** DATE *
(090) LAST INSPECTION DATE:              24 MO.  05/93

(092,093) CRITICAL FEATURE INSPECT INTERVAL & DATE

                                  CFI DETAIL  CFI  CAT INTERVAL  CFI DATE
A) FRACTURE CRITICAL:             Y           N    48 MO:       05/93
B) UNDERWATER INSP.:              N           ---  0 MO:        00/00
C) PIN CONNECTED:                 N           N    0 MO:        00/00
D) SNOOPER:                       N           N    0 MO:        00/00

********** FIELD INSPECTION **********
INSPECTED BY: [signature] P.E. LS

DATE INSPECTED: 4-20-95

********** OFFICE REVIEW **********
- BRIDGE EVALUATION UNIT -
ENGINEERING REVIEW NECESSARY?  ____ YES  X NO
REVIEWED BY: _____ DATE _____
```

TRUSS CONDITION FORM

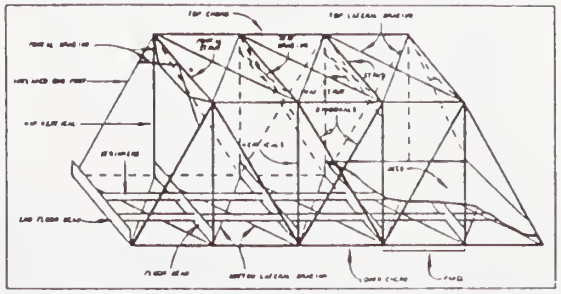
STRUCTURE NO. L 29 41015 + 0.700-1 FEATURE CROSSED Big Hole River

INSPECTED BY R. Johnson, F Medson DATE INSPECTED 4/20/95

TRUSS COMPONENTS*

A. END POSTS	H. SWAY BRACING
B. PORTAL STRUT	I. LOWER CHORD
C. PORTAL BRACING	J. BOTTOM LATERAL BRACING
D. TOP CHORD	K. VERTICALS
E. TOP LATERAL BRACING	L. DIAGONALS
F. TOP LATERAL STRUTS	M. PANEL CONNECTIONS
G. SWAY STRUTS	N. OTHER

* Identify components appropriately.



(A) END POST HEAVY RUSTED, & COVERED W/M DEBRIS, UNABLE TO WORK PROPERLY (B)(C) PORTAL STRUT & BRACING HAVE BEEN DAMAGED (SEE PHOTOS) & ALL RUSTED. (D) TOP CHORDS SEEM TO BE IN ALIGNMENT BUT ARE BADLY RUSTED WITH SCALE. (E)(F) ALL BADLY RUSTED & HAVE SLIGHT BENDS. (I) LOWER CHORDS SEEM TO BE IN ALIGNMENT BUT ALL BADLY RUSTED. (J) BOTTOM LATERAL BRACING ARE DENT, TWISTED & BADLY RUSTED. (K) VERTICALS HAVE SLIGHT DAMAGE & ALL RUSTED. (L) DIAGONALS ARE BADLY RUSTED WITH SCALE. (M) PANEL CONNECTIONS ARE BADLY RUSTED WITH SCALE & SLIGHT DAMAGE. (N) FLOORBEAMS ARE SLIGHTLY TWISTED & BOWED, BADLY RUSTED WITH SCALE.

L 29 41015 + 0.700

Big Hole River

4-20-95

Looking East

Looking North

SUPPLEMENTAL INSTRUCTIONS

Evaluate and describe items 58-62, 65, 71 and 72 based on the guidelines listed below and in the Inspector's Manual. Condition codes are used to describe the existing, in place bridge in comparison to its as built condition. Codes in the Appraisal Section are used to evaluate the bridge in relation to the level of service it provides to the highway system of which it is part. Maintenance items, listed alphabetically, do not necessarily affect the overall rating given to the major components. Where sketches and narrative descriptions cannot fully describe the deficiency, extra photos should be taken.

Code	Condition
N	NOT APPLICABLE
9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted.
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show some minor deterioration.
5	FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
4	POOR CONDITION - advanced section loss, deterioration, spalling or scour.
3	SERIOUS CONDITION - loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
2	CRITICAL CONDITION - advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond correction action.

Code	Appraisal
N	Not applicable
9	Superior to present desirable criteria
8	Equal to present desirable criteria
7	Better than present minimum criteria
6	Equal to present minimum criteria
5	Somewhat better than minimum adequacy to tolerate being left in place as is
4	Meets minimum tolerable limits to be left in place as is
3	Basically intolerable requiring high priority of corrective action
2	Basically intolerable requiring high priority of replacement
1	This value of rating code not used
0	Bridge closed

MAINTENANCE PRIORITIES

The inspector is to enter the letters "C," "P" or "R" under the priority column that best describes the structure's maintenance priority. The inspector shall use his or her best judgment of the condition using these guidelines.

CRITICAL: Requires the immediate attention of maintenance personnel because the structure's integrity is questionable. The Bridge Maintenance Manager in Helena is to be notified by the Division Maintenance Chiefs. When corrective action has been taken under this priority, the supervisor in charge should complete the bottom portion of this form and attach to Form MMS-97 for return to the Maintenance Administrator.

A. Fractured stringers, girders or beams.
B. Prestressed beams - exposed strands need painting.
C. Fractured or severely misaligned truss members.
D. Timber structure with broken piles, severely crushed c
E. Holes in deck or spalls and delaminated in excess of 1
F. Anything unusual (changes, separations, misalignments)

PREVENTATIVE: Should be attended to in a timely manner to prevent the condition from becoming critical. When corrective action has been taken under this priority, the supervisor in charge should complete the bottom portion of this form and attach to Form MMS-97 for return to the Maintenance Administrator.

A. End fills sloughing (depending on extent, could be critical).
B. Spalls and delamination of deck between 5% and 10%.
C. Structural steel and/or bridge rail needs painting.

ROUTINE: Regular items of maintenance needing attention.

A. Drains and/or joints need cleaning.
B. Clean around shoes.
C. Removal of drift and debris from around piers.

ACTIVITY CODE DESCRIPTIONS

The inspector should enter the activity code which best describes their maintenance recommendations. If the appropriate number is unknown, leave blank for maintenance persons to complete. An activity code is unnecessary for routine maintenance. The 4000 series is specifically for bridges, but other codes may also apply. A complete list of activity codes can be found in the Bridge Inspection and Maintenance Manuals.

4101 Structure Painting
4102 Repair Timber Structures
4103 Concrete Bridge Deck Repair
4104 Repair or Replace Structural Steel
4105 Substructure Concrete Repair
4106 Expansion Joint Repair
4107 Bridge Curb and Railing Repair
4108 Emergency Bridge Repairs
4109 Structure Leveling
4301 Betterment Work - Bridge Structure

Distribution: After inspection submit white original to the Bridge Bureau, pink copy to the Division Maintenance Office or local authority (e.g., county, city) and yellow copy for the Division Inspection files.

Appendix D: Materials Pertinent to *Section 4(f)* Evaluation

MEMORANDUM OF AGREEMENT
BIG HOLE RIVER - SE OF GLEN
MADISON COUNTY, MONTANA
BR 9029(9)
Control No. 2283

WHEREAS the Federal Highway Administration (FHWA) proposes to assist the Montana Department of Transportation (MDT) in funding the Big Hole River - Southeast of Glen bridge replacement project.

WHEREAS FHWA has determined that the undertaking will have an effect on the Big Hole River Overflow Bridge (24MA413), a property eligible for inclusion on the National Register of Historic Places, and has consulted with the Montana State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (Council) pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) and its implementing regulations, "Protection of Historic Properties" (36CFR 800);

WHEREAS MDT, Montana Department of Fish, Wildlife & Parks and the Rotary Club of Dillon, Montana participated in the consultation and has been invited to concur in this Memorandum of Agreement; and

NOW, THEREFORE; FHWA, the Montana SHPO, and Council agree that the undertaking will be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

Stipulations

FHWA shall ensure that the following measures are carried out:

1) The Rotary Club of Dillon, Montana has agreed to adopt the Big Hole River Overflow Bridge (24MA413) under the provision's of the MDT's Adopt-A-Bridge Program (See Attachments 1 & 2). The bridge will be relocated to a site crossing the Beaverhead River at Dillon where it will be utilized as a component of a bicycle/pedestrian path.

2) The MDT will conduct HAER-level recordation of the Big Hole River Overflow Bridge (24MA413) prior to its removal from its existing site. The report will be distributed to the SHPO, Montana Historical Society and the Madison and Beaverhead county historical societies.

3) The MDT will prepare a report describing the adoption and relocation process for 24MA413 and its resulting function as a bicycle/pedestrian crossing. The report will be distributed to the FHWA, ACHP, SHPO and internally at the MDT. Copies of the report will also be made available to interested members of the public and those considering the adoption of an historic highway bridge for MDT bridge replacement projects in the future.

4) Other than construction of the roadway, all construction-related activities will be excluded from the Montana Department of Fish, Wildlife & Parks' Glen Fishing Access Site. MDT and FWP will prohibit the use of the area delineated on Map 1 (attached) for staging or parking for supplies or equipment in a Special Provision to the contract.

5) If a dispute arises regarding the implementation of this Agreement, FHWA shall consult with the objecting party to resolve the dispute. If any consulting party determines that the dispute cannot be resolved, FHWA shall request the further comments of the Advisory Council on Historic Preservation pursuant to the Council's regulations.

EXECUTION OF THIS MEMORANDUM OF AGREEMENT and implementation of its terms evidences that FHWA has afforded the Council an opportunity to comment on the Big Hole River - Southeast of Glen bridge replacement project and its affects to historic properties, and that FHWA has taken into account the effect of the Undertaking on historic properties.

Federal Highway Administration — (Date) 11-19-97

Montana State Historic Preservation Office — (Date) 11-12-97

Advisory Council on Historic Preservation — (Date) 12/8/97

Concurring Parties:

Montana Department of Transportation — (Date) Oct 20, 1997

Dept. of Fish, Wildlife & Parks — (Date) 10/22/97

Rotary Club of Dillon, Montana (Date)

Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Marc Racicot, Governor

December 9, 1996

96-2114-MDT

Paul Putz
State Historic Preservation Office
1410 8th Avenue
P.O. Box 201202
Helena, MT 59620-1202

Subject: BR 9001(20)/9029(9)
Big Hole River Bridges - Glen
Control Nos. 2282/2283

Enclosed are the completed site forms for the Big Hole River Bridge (24BE1564) in Beaverhead County and the Big Hole River Overflow Bridge (24MA413) in Madison County for your review. We have reassessed the NRHP-eligibility of the Big Hole River Bridge (24BE1564) after comparing Fred Quivik's 1979 evaluation of the structure with its current condition. Consequently, we can no longer recommend 24BE1564 as eligible for the National Register. Its structural condition has significantly deteriorated since 1979 and new, structurally incompatible, components have been added to it. We continue to recommend 24MA413 eligible for the NRHP as the only example of a pin-connected Warren through truss highway bridge in Montana.

If you concur with our re-evaluation of 24BE1564, this project's MOA will need to be revised to include only 24MA413. In any case, both bridges would still be offered for adoption.

If you have any questions, please contact me at 444-6258.

Jon Axline

Jon Axline, Historian
Environmental Services

Enclosures

cc: Jason Giard, P.E., Butte District Administrator
Joseph Kolman, P.E., Bridge Engineer
Gordon Stockstad, Resources Section

CONCUR
MONTANA SHPO
DATE 12-20-96 SIGNED

Montana Department
of Transportation

September 13, 1996

Paul Putz
State Historic Preservation Office
1410 8th Avenue
P.O. Box 201202
Helena, MT 59620-1202

Subject: BR 9001(20)/BR 9029(9)
Big Hole River - SE of Glen
Control Nos. 2282/2283

Enclosed is the Determination of Effect for the above project. We have determined that the proposed project would have **No Adverse Effect** to the Big Hole River Bridge (24BE1564) and the Big Hole River Overflow Bridge (24MA413). Both bridges will be treated under the provisions of the draft Roads and Bridges Historic Preservation Plan. They will be offered for adoption through newspaper and radio advertisements in southwestern Montana.

If you have any questions, please contact me at 444-6258.

Jon Axline

Jon Axline, Historian
Environmental Services

Enclosure

cc: Jason Giard, P.E., Butte District Administrator
Joseph Kolman, P.E., Bridge Engineer
Gordon Stockstad, Resources Section
Dan Norderud, Robert Peccia & Associates

Montana Department
of Transportation

701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

August 28, 1996

Paul Putz
State Historic Preservation Office
1410 8th Avenue
P.O. Box 201202
Helena, MT 59620-1202

Subject: BR 9001(20)/BR (029(9)
Big Hole River - SE of Glen
Control Nos. 2282/2283

Enclosed is the cultural resource report, CRABS and site form for the above project. We originally submitted this document to your office on May 31, 1996, but it was apparently lost in transit (we never received concurrence from you and there is no record that it ever reached your office).

The proposed project area contains three previously recorded properties. The Big Hole River Bridges (24BE1564 and 24MA413) were determined eligible by the MDT and SHPO in 1985. Both structures will be treated under the provisions of the draft Roads and Bridges Historic Preservation Plan. Indeed, one individual has already indicated a willingness to adopt 24BE1564 under the conditions of the Adopt-A-Bridge program. The other (24MA413) will be advertised for adoption in local newspapers and through public service announcements on area radio stations.

In addition, a possible Native American burial ground (24BE899) is located within the Montana Department of Fish, Wildlife & Parks' Glen Fishing Access Site. The preliminary plans for this project have been reviewed and the site is well outside the MDT's impact area for this project.

If you have any questions, please contact me at 444-6258.

Jon Axline

Jon Axline, Historian
Environmental Services

Enclosures

cc: Jason Giard, P.E., Butte District Administrator
Joseph Kolman, P.E., Bridge Engineer
Joel Marshik, P.E., Environmental Services
Gordon Stockstad, Resources Section
Paul Valle, MT Dept. of Fish, Wildlife & Parks

Attachment 2

MDT ADOPT-A-BRIDGE POLICY

The MDT has initiated an Adopt-A-Bridge policy to find "new homes for old bridges" that have been designated for replacement. It is recognized that not all historic bridges can be preserved through this program. Much will depend on the proximity of the structure to a suitable alternate site, type, size and condition of the existing bridge, the structure's ability to withstand the relocation, and the new owner's ability to accept responsibility and liability for the bridge. Doubtless many historic bridges will still be demolished, but this program may succeed in preserving a significant number of them.

The Adopt-A-Bridge policy consists of the following:

1) All truss and steel girder bridges with a structural rating of three (3) or above will be considered for the program. The bridge must be fifty years old at the time of the scheduled replacement.

2) Reinforced concrete and timber stringer bridges will not be considered for this program unless they can be preserved in place.

3) Evaluation of the historic bridge for inclusion in the program will be made during the preliminary field review of the proposed project by the appropriate District Administrator, the MDT Bridge Bureau, and the MDT's Environmental Services Unit historian.

   A) The Bridge Bureau's recommendation will be based on the structural condition of the bridge and its suitability for relocation.

   B) The historian's recommendation will be based on the bridge's historic and/or structural significance.

      (1). The evaluation will be based on the National Register of Historic Places criteria.

      (2) A bridge will not be considered for the program if the loss of integrity has rendered it ineligible for the NRHP.

   C) The SHPO will be notified of the bridge's selection to the Adopt-A-Bridge program and given thirty (30) days to comment.

4) If deemed suitable to the program, the bridge will be advertised for adoption in the local newspapers and radio public service announcements (PSAs) for 45 days prior to the completion of the environmental document.

   A) The historian will prepare the advertisement and submit it to the appropriate newspaper(s).

   B) The MDT will offer potential owners the demolition cost of the bridge as an incentive to adopt the historic structure.

      (1) If the bridge is to be relocated, then the demolition money can

be applied to the move.

(2) If the bridge will be adopted and left in-place, then the money must be applied to the restoration, rehabilitation or liability of the historic structure.

C) The Bridge Bureau will receive the responses to the advertisements and PSAs.

5) The Bridge Bureau will contact potential interested owners of the historic bridge and request they provide the following information (in writing): the proposed location, intended use of the bridge when adopted and ability to assume the liability and responsibility of the bridge.

A) If it is determined that a potential recipient of an historic bridge intends to demolish it for its value as scrap metal, then he/she will be removed from further consideration.

6) The District Administrator, Bridge Bureau and the historian will select the new owner based on the written response received from Part 5 above.

7). The new owner (2nd Party) must agree, in writing, to assume the liability for the historic bridge once he/she has taken possession of the structure. The MDT and/or County will not be held liable for the bridge once ownership has been transferred to the 2nd Party.

8) If the bridge will be relocated, the 2nd Party must remove the bridge from the construction site within 30 days of notification by the Project Manager. The 2nd Party will be reimbursed for the move once the MDT Bridge Bureau has been notified by the Project Manager that the bridge has been removed from the construction site and relocated.

A) The 2nd Party must maintain the bridge and the features that give it its historic significance.

B) The 2nd party must assume all future legal and financial responsibility for the bridge, which may include an agreement to the Montana Department of Transportation harmless in any liability action.

C) The 2nd Party will permit access to the relocated bridge for up to five years for follow-up documentation purposes.

D) The MDT will notify the 2nd Party of any inspection of the bridge ten working days before the visit.

9) If the bridge is left in place, the 2nd Party will be reimbursed for the property transferral once documentation has been received by the District Administrator, Bridge Bureau and historian detailing plans for restoration or rehabilitation and the agreement has been executed.

10) The 2nd Party will be responsible for securing all necessary permits and easements from the appropriate federal and state agencies (i.e. Army Corps of Engineers, Montana Department of Natural Resources and Conservation, etc.).

11) There will be no reimbursement to the second party until they have assumed the liability and responsibility for the bridge.

12) The MDT will be responsible for removing the abutments and piers and the clean-up of the old bridge site (if necessary).

    A) If the abutments are determined structurally significant, they will be left in place.

        (1) The MDT will make that determination on a case-by-case basis.

13) The historian will prepare a biennial report detailing the progress of the Adopt-A-Bridge program. The report will be submitted to FHWA, ACHP and SHPO and the Montana Transportation Commission. The report should include:

    A) Number and type of bridges impacted by the program.

    B) Current use of the historic bridges relocated or left in place.

    C) Benefits and problems of the program.

    D) Before and after photographs

    E) Assessment of the program's value.

14) If the Adopt-A-Bridge program is proven to be ineffective in its purpose to preserve historic bridges under public or private ownership when left in place or at alternate locations, then it will be revised as necessary.

    A) The FHWA, ACHP and SHPO will be asked to comment on revisions to the Adopt-A-Bridge program before enacted.

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

ER-99/302

MAY 14 1999

Ms. Janice W. Brown
Division Administrator
Federal Highway Administration
2880 Skyway Drive
Helena, Montana 59602

Dear Ms. Brown:

This is in response to the request for the Department of the Interior's comments on the Environmental Assessment/Draft Section 4(f) Evaluation for the Big Hole River Bridges, SE of Glen, BR 9001 (20) - West Bridge, and BR 9029 (9) - East Bridge, Beaverhead and Madison Counties, Montana.

We concur that there is no prudent and feasible alternative to the proposed project, if project objectives are to be met. We also concur with the proposed measures to minimize harm to the Big Hole River Overflow Bridge and the Glen Fishing Access Site.

Please note that the National Park Service will consider a conversion request for the property at the Glen Fishing Access Site under Section 6(f) only after Section 4(f) approval by the Department of Transportation. The conversion request should be submitted through Mr. Arnold Olson, Administrator, Parks Division; Department of Fish, Wildlife and Parks; 1420 East 6th Avenue, Helena, Montana 59620; telephone 406-444-3750, fax 406-444-4952. Mr. Olson is responsible for the administration of the Land and Water Conservation Fund program in the State of Montana.

The Department of the Interior has no objection to Section 4(f) approval of this project by the Department of Transportation.

We appreciate the opportunity to provide these comments.

Sincerely,

Willie R. Taylor
Director, Office of Environmental Policy and Compliance

Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

September 21, 1998

Ken Soderberg
Parks Division
Montana Department of Fish, Wildlife & Parks
1420 East Sixth Avenue
P.O. Box 200701
Helena, MT 59620-0701

Subject: BR 9001 (20)/9029 (9)
BIG HOLE RIVER BRIDGES - SE OF GLEN
Control Nos. 2282/2283

The Montana Department of Transportation (MDT) proposes a minor use of 4(f) land from the Glen Fishing Access Site as part of a project to replace the existing bridge over the Big Hole River on Burma Road (a county road) in Beaverhead County, Montana. According to your letter of September 4, 1998, the Glen Fishing Access Site is also still encumbered with LAND & WATER CONSERVATION FUND - Section 6(f). Since the site was developed in part with money from this fund, MDT must replace the impacted 4(f)/6(f) land with land of reasonably equivalent usefulness, location, and value.

As indicated in my June 18, 1998 letter to you, MDT's proposed mitigation is reimbursement to the Montana Department of Fish, Wildlife & Parks (MDFWP) for the 0.62 ha (1.54 acres) of 4(f) land at fair market value which has been appraised at $ 9,300.00. Additionally, MDT proposes to reconstruct the county road approach to the Glen Fishing Access Site, provide new gravel for the boat ramp near the existing bridge, and replace perimeter fencing along the MDFWP property affected by this project. Your September 4, 1998 letter indicated your general concurrence with our appraised value and other proposed Section 4(f) mitigation measures.

Due to the recently discovered Section 6(f) encumbrance on the Glen Fishing Access Site, MDT also proposes that the value of the affected property be used against the acquisition of the Motherell property adjacent to Lewis and Clark Caverns in Jefferson County for a new fishing access or recreational site. This acquisition would be used to mitigate the impacts of this proposed highway project on the Glen Fishing Access Site and impacts on other *6(f)* sites affected by MDT's Four Corners-West, Silver Star North & South, and Big Hole River-West of Melrose projects.

To complete our Section 4(f) evaluation for this project, MDT needs written concurrence from the MDFWP regarding the proposed mitigation for Section 4(f) and 6(f) impacts. Therefore, please return a signed copy of this concurrence letter as soon as possible if you agree with our proposed Section 4(f) and 6(f) mitigation.

Thanks for your cooperation in this matter. If you have any questions, please don't hesitate to call me at 444-7224.

Karl M Helvik

Karl M. Helvik, P.E.
Engineering Bureau Chief
Environmental Services

Concur: Ken Soderberg
Montana Department of Fish, Wildlife & Parks

Date: 9-23-98

KMH:rpa:dmn

Attachments

cc: Jason Giard, P.E., Administrator - MDT Butte District (№ 2)
Carl S. Peil, P.E. - MDT Preconstruction Engineer
Joseph P. Kolman, P.E. - MDT Bridge Engineer
Thomas E. Martin. P.E., - MDT Right-of-Way Engineer
Timothy W. Reardon, Chief Counsel - MDT Legal Services
David W. Jensen, Supervisor - MDT Fiscal Programming Section
Mark A. Wissinger, P.E., Supervisor - MDT Contract Plans Section
Joel M. Marshik, P.E.- MDT Environmental Services Manager
Project file

Montana Fish, Wildlife & Parks

MASTER FILE COPY

PO Box 200701
1420 East Sixth Avenue
Helena, MT 59620-0701

September 4, 1998

Karl Helvig, PE
Engineering Bureau Chief
Environmental Services
Montana Department of Transportation
2701 Prospect Ave.
PO Box 201001
Helena, MT 59620-1001

Dear Karl:

Attached is the concurrence document for the Big Hole River Bridge- SE of Glen (Control numbers 2282/2283) project which affects the Glen Fishing Access Site. I apologize for the delay in my response back to you on this project.

We concur with the value proposed to be used to mitigate section 4(f), provided it is commensurate with the final amount of property needed for right of way as defined in the right of way construction plans. Please forward a copy of these plans to and the Debby Dils in the FWP Field Services Division, Lands Section when they are available.

Please note that the letter from Mary Ellen McDonald dated January 8, 1997 is incorrect. Glen FAS is still encumbered with LWCF and as such will require that the property affected be replaced. As such, the value the affected property at Glen FAS may be used against the acquisition of the Motherell property near Lewis and Clark Caverns State Park, if you wish to do so. Please contact me if MDOT wants to mitigate the 6(f) and 4(f) in this manner.

Again, I apologize for the delay.

Sincerely,

Ken Soderberg
Resource Program Manager

cc: Debby Dils

Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

June 18, 1998

Ken Soderberg
Parks Division
Montana Department of Fish, Wildlife & Parks
1420 East Sixth Avenue
P.O. Box 200701
Helena, MT 59620-0701

Subject: BR 9001 (20)/9029 (9)
BIG HOLE RIVER BRIDGES - SE OF GLEN
Control Nos. 2282/2283

The Montana Department of Transportation (MDT) proposes a minor use of 4(f) land from the Glen Fishing Access Site as part of a project to replace the existing bridge over the Big Hole River on Burma Road (a county road) in Beaverhead County, Montana. Enclosed is the "rough draft" Environmental Assessment that is being prepared in compliance with the Montana Environmental Policy Act (MEPA) and the National Environmental Policy Act (NEPA). The Environmental Assessment contains a copy of the proposed "Nationwide" Section 4(f) Evaluation for the proposed use of land from the Glen Fishing Access Site.

The attached map shows the hatched area for the proposed location of the new right-of-way on the tract containing the Glen Fishing Access Site 4(f) property. The legal description and impacted area is listed below:

- S½SW¼SW¼ of Section 24, Township 4 South, Range 9 West
  Impacted Area = 0.62 ha (1.54 acres)

The proposed mitigation is reimbursement by MDT to the Montana Department of Fish, Wildlife & Parks (MDFWP) for the 0.62 ha (1.54 acres) of 4(f) land at fair market value which has been appraised at $ 9,300.00. A copy of MDT's Appraisal Report which provides the basis for this determination of fair market value is attached for your review. Additionally, MDT proposes to reconstruct the county road approach to the Glen Fishing Access Site, provide new gravel for the boat ramp near the existing bridge, and replace perimeter fencing along the MDFWP property affected by this project. To complete the Section 4(f) evaluation, MDT needs written concurrence from the MDFWP on the impact assessment.

The project has a Plans Ready Date of October 1, 1998 and it is important for us to complete the 4(f) evaluation prior to additional work. Please return a signed copy of this concurrence letter as soon as possible if you agree with MDT's Section 4(f) assessment and proposed mitigation.

Also, please review the enclosed rough draft Environmental Assessment and provide us with any comments you have in writing within two weeks from the above date. If no comments are received for the Environmental Assessment we will assume concurrence. If you have any questions, please call me at 444-7224.

Karl M. Helvik

Karl M. Helvik, P.E.
Engineering Bureau Chief
Environmental Services

Concur: _____
Montana Department of Fish, Wildlife & Parks

Date: 9-4-98

KMH:rpa:dmn

Attachments

cc: Jason Giard, P.E., Administrator - MDT Butte District (Nº 2)
Carl S. Peil, P.E. - MDT Preconstruction Engineer
Joseph P. Kolman, P.E. - MDT Bridge Engineer
Thomas E. Martin. P.E., - MDT Right-of-Way Engineer
Timothy W. Reardon, Chief Counsel - MDT Legal Services
David W. Jensen, Supervisor - MDT Fiscal Programming Section
Mark A. Wissinger, P.E., Supervisor - MDT Contract Plans Section
Joel M. Marshik, P.E.- MDT Environmental Services Manager
Project file

Montana Fish, Wildlife & Parks

RECEIVED

APR 3 0 1998

ENVIRONMENTAL

Joel Marshik, PE
Environmental Services Manager
Montana Department of Transportation
Box 201001
Helena MT 59620-0701

April 27, 1998

Dear Joel,

I have sent the documentation to the NPS for the Riceville Hill project using land adjacent to Lewis and Clark Caverns as replacement property. I have discussed this project with the National Park Service as well as MDOT's desire to use the remaining value on the Mother El parcel as replacement for other FWP sites MDOT will impact that are encumbered with LWCF funding. The remaining value of the replacement property can be used against the other projects. Upon approval of the Riceville Hill 6(f) I should receive a letter from NPS to that affect. You will have one year to carry this value over to other projects. We will need appraisals of the properties involved and will need the copies of the environmental documentation you will be preparing.

Sincerely,

Ken Soderberg
Resource Program Manager
ASLO- LWCF Program

C: Debby Dils
Doug Monger
Karl Helvig- MDOT

Montana Fish, Wildlife & Parks

Joel Marshik
Environmental Manager
Department Of Transportation
2701 Prospect
POB 201001
Helena, MT 59620

April 15, 1998

REF: RICEVILLE HILL
CONTROL No. 2021

Dear Joel:

This letter is to confirm that Montana Fish, Wildlife and Parks concurs with using property at Lewis and Clark Caverns for replacement property to satisfy 6(f) and 4(f) mitigation for land MDOT will impact on Sluice Boxes State Park as part of the Riceville Hill realignment project.

This concurrence is contingent on successful negotiation with the landowner for acquisition of the property at Lewis and Clark Caverns and final approval from the National Park Service for 6 (f) mitigation. These approvals will not hold up commencing work on the project as FWP has already initiated the process to transfer title to the easement needed at the Riceville location. I have explained to the Park Service the need to move forward with the Riceville Hill project. If negotiations are unsuccessful alternate replacement property must be found.

Please forward the following so I can send them to the NPS for review, a copy of the 4(f) documentation you have prepared for the project, a copy of the appraisal for the property in the Sluice Boxes that is affected and a copy of the EA prepared for the project.

If you have questions please call.

Sincerely,

Ken Soderberg
Management Bureau
Parks Division

C: Karl Helvig- MDOT
Debbie Dils- FWP

Montana Fish, Wildlife & Parks

1420 East Sixth Avenue
P.O. Box 200701
Helena, MT 59620

January 8, 1997

Joel M. Marshik, P.E.
Manager - Environmental Services
Montana Department of Transportation
P. O. Box 201001
Helena, MT 59620-1001

Re: MDT Projects - LWCF Section 6(f)

Dear Joel:

The following three projects have been identified as potentially impacting three MDFW&P Fishing Access Sites. The LWCF has been removed from the four FAS' in a large LWCF consolidation project which has recently been approved by National Park Service.

BR 9048(11) Yellowstone R - W of Reedpoint Control #2477 Indian Fort FAS	IM 90-7(65)380 Bridger CR-E & W (P.M.S. C#3099) Bratten FAS
BR 9049(13) Yellowstone R - SW of Big Timber Control #2399 Grey Bear FAS	BR 9001(20 Big Hole R - SE of Glen Control #2282 & 2283 Glen FAS

Because the LWCF Section 6(f) protection has been removed from these sites, there will be no Section 6(f) impacts as a result of your projects. Please continue to work with our respective regions in mitigating Section 4(f) impacts.

Please give me a call at 444-3756 if you have questions or need additional information.

Sincerely,

Mary Ellen McDonald

Mary Ellen McDonald
Program Officer
Recreation & Resource Bureau
Parks Division

cc: Tom Reilly

Form 36

373

STATE OF MONTANA
DEPARTMENT OF FISH AND GAME

PROJECT:

WARRANTY DEED

THIS INDENTURE, made this 1st day of July, 1965, IN CONSIDERATION of the sum of Ten and no/100 Dollars ($10.00), together with other good and valuable considerations, lawful money of the United States to them in hand paid by the STATE OF MONTANA, the receipt whereof is hereby acknowledged, WITNESSETH THAT,

JOHN PETTINGILL and JANE PETTINGILL, husband and wife, of Glen, Montana,

do hereby GRANT, BARGAIN, SELL, CONVEY, WARRANT AND CONFIRM unto the STATE OF MONTANA for the benefit and use of its STATE FISH AND GAME COMMISSION the following described real property, to-wit:

That certain tract, piece and parcel of land, situated in the South Half of the Southwest Quarter (S½SW¼) of Section Twenty-four (24) in Township Four (4) South of Range Nine (9) West of the Montana Principal Meridian in the County of Beaverhead, State of Montana, described as follows, to-wit:

Commencing at the witness corner common to Sections 23, 24, 25 and 26 in said Township 4 South, Range 9 West of the said Montana Principal Meridian: Thence running South, 89° 54' East, 11.9 feet to an iron pipe which is the point of beginning of the tract hereby intended to be described; thence running South 89° 54' E., 1286.6 feet to an iron pipe; thence running North 29° 48' West, 239.4 feet to an iron pipe; thence running North 34° 20' West 138.8 feet to an iron pipe; thence running North 65° 04' West, 216.3 feet to an iron pipe; thence running South 39° 29' West, 147.4 feet to an iron pipe; thence running South, 64° 38' West, 397.3 feet to an iron pipe; thence running South 68° 11' West, 416.8 feet to an iron pipe; thence running South, 00° 25' West, 57.0 feet to an iron pipe, which is the said point of beginning of the tract so intended to be described, containing 7.85 acres, more or less.

TO HAVE AND TO HOLD the above described and conveyed premises, with all the reversions, remainders, tenements, hereditaments and appurtenances thereto, unto the said STATE OF MONTANA, and to its successors and assigns forever.

And the undersigned hereby covenant that they will forever WARRANT and DEFEND all right, title and interest in and to the said premises and the quiet and peaceable possession thereof, unto the STATE OF MONTANA, its successors and assigns, against all acts and deeds of the undersigned, and all and every person or persons whomsoever lawfully claiming or to claim the same.

IN WITNESS WHEREOF the undersigned have executed these premises the day and year first above written.

John Pettingill
JOHN PETTINGILL

[illegible]
JANE PETTINGILL

STATE OF Montana }
County of Beaverhead } ss.

On this 16th day of July A. D. 1965, before me [illegible], a Notary Public in and for the State of Montana personally appeared JOHN PETTINGILL and JANE PETTINGILL, husband and wife,

known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written.

R C [illegible]
Notary Public for the State of Montana
Residing at [illegible], Montana.
My Commission expires [illegible]

Notarial Seal

STATE OF ______ }
County of ______ } ss.

On this ____ day of ______ A. D. 19__, before me ______, a Notary Public in and for the State of ______, personally appeared ______

known to me to be the person__ whose name ______ subscribed to the within instrument and acknowledged to me that ______ executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written.

______
Notary Public for the State of ______
Residing at ______
My Commission expires ______

Notarial Seal

PLATTED

INDEXED

Beaverhead County

WARRANTY DEED

John Pettingill et ux

TO

STATE OF MONTANA

No. 119055

Office of
COUNTY CLERK AND RECORDER
County of Beaverhead, Montana

I hereby certify that the within instrument was filed for record in this office on the 16th day of July A. D. 1965, at 1:30 o'clock P. M., and was duly recorded in book 80 of Deeds page 378-4

[signature]
County Clerk and Recorder

By ______ Deputy

No Fee ✓
Indexed ✓ Recorded ✓ Compared ______

After recording please mail to
State Fish and Game Commission
HELENA, MONTANA

LEGAL DESCRIPTION

Beginning at the W.C. Corner (witness-corner, brass cap) common to Sections 23, 24, 25 and 26, T-4-S, R-9-W, M.P.M.; thence traversing S 89°54' E - 11.9 feet, to an iron pipe, which is the point of beginning of the herein described metes and bounds survey; thence S 89°54' E - 1286.6 feet to an iron pipe; thence N 29°48' W - 289.4 feet, to an iron pin; thence N 34°20' W - 188.8 feet, to an an iron pipe; thence N 65°04' W - 216.3 feet, to an iron pipe; thence S 39° 29' W - 147.4 feet, to an iron pin; thence S 64° 35' W - 397.3 feet, to an iron pin; thence S 68°11' W - 416.8 feet, to an iron pin; thence S 0° 25' W - 57.0 feet, to an iron pipe, which is the point of beginning of the herein described survey.

Said tract encompasses an area of 7.95 acres (seven and eighty-five hundredths), more or less.

Michael Mattovich
Montana Registration No. 176 ES
Dillon, Montana

4-14-64

SCALE 1"=100'